

4.0 ENVIRONMENTAL CRITERIA

It is the intent of the Governing Board that the criteria in subsections 4.2 through 4.3.8 be implemented in a manner which achieves a programmatic goal, and a project permitting goal, of no net loss in wetland and other surface water functions. This goal shall not include projects that are exempt by statute or rule, or which are authorized by a noticed general permit. Unless exempt by statute or rule, permits are required for the construction, alteration, operation, maintenance, abandonment and removal of systems so that the District can conserve the beneficial functions of these wetlands or other surface waters.

4.1 Wetlands and other Surface Waters -

Wetlands are important components of the water resource because they often serve as spawning, nursery and feeding habitats for many species of fish and wildlife, and because they often provide important flood storage, nutrient cycling, detrital production, recreational and water quality functions. Other surface waters such as lakes, ponds, reservoirs, other impoundments, streams, rivers and estuaries also often provide such functions, and in addition may provide flood conveyance, navigation and water supply functions to the public. Not all wetlands or other surface waters provide all of these functions, nor do they provide them to the same extent. A wide array of biological, physical and chemical factors affect the functioning of any wetland or other surface water community. Maintenance of water quality standards in applicable wetlands and other surface waters is critical to their ability to provide many of these functions.

Unless exempted by statute or rule, permits are required for the construction, alteration, operation, maintenance, abandonment and removal of systems so that the District can conserve the beneficial functions of these communities. The term "systems" includes dredged or filled areas. When used in section 4.0 of the Basis of Review, "wetlands and other surface waters" means those areas as delineated pursuant to the methodology in Chapter 62-340, F.A.C. as ratified in section 373.4211, F.S.

4.1.1 Environmental Conditions for Issuance

The District addresses the conservation of these beneficial functions in the permitting process by requiring applicants to provide reasonable assurances that the following conditions for issuance of permits, set forth in Sections 40E-4.301 (Conditions for Issuance) and 40E-4.302 (Additional Conditions for Issuance), F.A.C., are met. Applicants must provide reasonable assurance that:

- (a) a regulated activity will not adversely impact the value of functions provided to fish and wildlife and listed species by wetlands and other surface waters (paragraph 40E-4.301(1)(d), F.A.C.)(see subsection 4.2.2);
- (b) a regulated activity located in, on, or over wetlands or other surface waters, will not be contrary to the public interest, or if such an activity significantly degrades or is located within an Outstanding Florida Water, that the regulated activity will be clearly in the public interest (paragraph 40E-4.302(1)(a), F.A.C.) (see subsections 4.2.3 through 4.2.3.7);
- (c) a regulated activity will not adversely affect the quality of receiving waters such

that the water quality standards set forth in chapters 62-3, 62-4, 62-302, 62-520, 62-522, and 62-550, F.A.C., including any antidegradation provisions of sections 62-4.242(1)(a) and (b), 62-4.242(2) and (3), and 62-302.300 and any special standards for Outstanding Florida Waters and Outstanding National Resource Waters set forth in sections 62-4.242(2) and (3), F.A.C., will be violated (paragraph 40E-4.301(1)(e), F.A.C.).

- (d) a regulated activity located in, adjacent to or in close proximity to Class II waters or located in waters classified by the Department as approved, restricted, or conditionally restricted for shellfish harvesting as set forth in Chapter 16R-7, F.A.C., will comply with the additional criteria in subsection 4.2.5 of the Basis of Review (paragraph 40E-4.302(1)(c), F.A.C.);
- (e) the construction of vertical seawalls in estuaries and lagoons will comply with the additional criteria in subsection 4.2.6 of the Basis of Review; (paragraph 40E-4.302(1)(d), F.A.C.)
- (f) a regulated activity will not cause adverse secondary impacts to the water resources (paragraph 40E-4.301(1)(f), F.A.C.) (see subsection 4.2.7);
- (g) a regulated activity will not cause unacceptable cumulative impacts upon wetlands and other surface waters (paragraph 40E-4.302(1)(b), F.A.C.) (see subsections 4.2.8 through 4.2.8.2);

4.2 Environmental Review Criteria -

Compliance with the conditions for issuance in subsection 4.1.1 will be determined through compliance with the criteria explained in subsections 4.2 - 4.3.8 of this Basis of Review.

4.2.1 Elimination or Reduction of Impacts

The degree of impact to wetland and other surface water functions caused by a proposed system, whether the impact to these functions can be mitigated and the practicability of design modifications for the site, as well as alignment alternatives for a proposed linear system, which could eliminate or reduce impacts to these functions, are all factors in determining whether an application will be approved by the District. Design modifications to reduce or eliminate adverse impacts must be explored, as described in subsection 4.2.1.1. Any adverse impacts remaining after practicable design modifications have been implemented may be offset by mitigation as described in subsections 4.3 - 4.3.8. An applicant may propose mitigation, or the District may suggest mitigation, to offset the adverse impacts caused by regulated activities as identified in sections 4.2 - 4.2.8.2. To receive District approval, a system cannot cause a net adverse impact on wetland functions and other surface water functions which is not offset by mitigation.

- 4.2.1.1** Except as provided in subsection 4.2.1.2, if the proposed system will result in adverse impacts to wetland functions and other surface water functions such that it does not meet the requirements of sections 4.2.2 through 4.2.3.7, then the District in determining whether to grant or deny a permit shall consider whether the applicant has implemented practicable design modifications to reduce or eliminate such adverse impacts.

The term "modification" shall not be construed as including the alternative of not implementing the system in some form, nor shall it be construed as requiring a project that is significantly different in type or function. A proposed modification which is not technically capable of being done, is not economically viable, or which adversely affects public safety through the endangerment of lives or property is not considered "practicable". A proposed modification need not remove all economic value of the property in order to be considered not "practicable". Conversely, a modification need not provide the highest and best use of the property to be "practicable". In determining whether a proposed modification is practicable, consideration shall also be given to the cost of the modification compared to the environmental benefit it achieves.

4.2.1.2 The District will not require the applicant to implement practicable design modifications to reduce or eliminate impacts when:

- (a) the ecological value of the function provided by the area of wetland or other surface water to be adversely affected is low based on site specific analysis using the factors in subsection 4.2.2.3, and the proposed mitigation will provide greater long term ecological value than the area of wetland or other surface water to be adversely affected, or
- (b) the applicant proposes mitigation that implements all or part of a plan that provides greater long term ecological value than the area of wetland or other surface water to be adversely affected.

4.2.1.3 Should such mutual consideration of modification and mitigation not result in a permissible system, the District must deny the application. Nothing herein shall imply that the District may not deny an application for a permit as submitted or modified, if it fails to meet the conditions for issuance, or that mitigation must be accepted by the District.

4.2.2 *Fish, Wildlife, Listed Species and their Habitats*

Pursuant to paragraph 4.1.1(a), an applicant must provide reasonable assurances that a regulated activity will not impact the values of wetland and other surface water functions so as to cause adverse impacts to:

- (a) the abundance and diversity of fish, wildlife and listed species; and
- (b) the habitat of fish, wildlife and listed species.

In evaluating whether an applicant provided reasonable assurances under subsection 4.2.2, de minimis effects shall not be considered adverse impacts for the purposes of this subsection.

As part of the assessment of the impacts of regulated activities upon fish and wildlife and their habitats, the District will provide a copy of all notices of applications for standard general, individual, and conceptual approval permits which propose regulated activities in, on or over wetlands or other surface waters to the Florida Game and Fresh Water Fish Commission for

review and comment. In addition, the District staff may solicit comments from the Florida Game and Fresh Water Fish Commission regarding other applications to assist in the assessment of potential impacts to wildlife and their habitats, particularly with regard to listed wildlife species. Where proposed activities have a potential to impact listed marine species, the District will provide a copy of the above-referenced types of applications to the Department of Environmental Protection, Office of Protected Species.

The need for a wildlife survey will depend upon the likelihood that the site is used by listed species, considering site characteristics and the range and habitat needs of such species, and whether the proposed system will impact that use such that the criteria in subsection 4.2.2 - 4.2.2.3 and subsection 4.2.7 will not be met. As part of assessing the likelihood of use of a site by listed species, the District will consult scientific literature. Survey methodologies employed to inventory the site must provide reasonable assurances regarding the presence or absence of the subject listed species.

4.2.2.1 Compliance with subsections 4.2.2 - 4.2.3.7, 4.2.5 - 4.3.8 will not be required for regulated activities in isolated wetlands less than one half acre in size, unless:

- (a) the wetland is used by threatened or endangered species.
- (b) the wetland is located in an area of critical state concern designated pursuant to Chapter 380, F.S., or
- (c) the wetland is connected by standing or flowing surface water at seasonal high water level to one or more wetlands, and the combined wetland acreage so connected is greater than one half acre.
- (d) the District establishes that the wetland to be impacted is, or several such wetlands to be impacted are, cumulatively, of more than minimal value to fish and wildlife.

4.2.2.2 Alterations in livestock watering ponds that were constructed in uplands and which are less than one acre in area and alterations in drainage ditches that were constructed in uplands will not be required to comply with the provisions of subsections 4.2.2 - 4.2.2.3, 4.2.3 - 4.2.3.7, 4.2.5 - 4.3.8 unless those ponds or ditches provide significant habitat for threatened or endangered species. This means that, except in cases where those ponds or ditches provide significant habitat for threatened or endangered species, the only environmental criteria that will apply to those ponds or ditches are those included in subsections 4.2.4 - 4.2.4.5 and 4.2.2.4. This provision shall only apply to those ponds and ditches which were constructed before a permit was required under Part IV, Chapter 373, F.S. or were constructed pursuant to a permit under Part IV, Chapter 373, F.S. This provision does not apply to ditches constructed to divert natural stream flow.

4.2.2.3 The assessment of impacts expected as a result of proposed activities on the values of functions that any wetland or other surface water provides to fish, wildlife, and listed species will be based on a review of pertinent scientific literature, ecologic and hydrologic information, and field inspection. When assessing the value of such functions, the factors which the District will consider are:

- (a) condition - this factor addresses whether the wetland or other surface water is in a high quality state or has been the subject of past alterations in hydrology, water quality, or vegetative composition. However, areas impacted by activities in violation of a District or Department rule, order, or permit adopted or issued pursuant to Chapter 373, F.S. or Part VIII, Chapter 403, F.S. (1984, as amended), will be evaluated as if the activity had not occurred.
- (b) hydrologic connection - this factor addresses the nature and degree of off-site connection which may provide benefits to off-site water resources through detrital export, base flow maintenance, water quality enhancement or the provision of nursery habitat.
- (c) uniqueness - this factor addresses the relative rarity of the wetland or other surface water and its floral and faunal components in relation to the surrounding regional landscape.
- (d) location - this factor addresses the location of the wetland or other surface water in relation to its surroundings. In making this assessment, the District will consult reference materials such as the Florida Natural Areas Inventory, Local Government Comprehensive Plans, and maps created by governmental agencies identifying lands with high ecological value.
- (e) fish and wildlife utilization - this factor addresses use of the wetland or other surface water for resting, feeding, breeding, nesting or denning by fish and wildlife, particularly those which are listed species.

4.2.2.4 Water Quantity Impacts to Wetlands and Other Surface Waters

Pursuant to paragraph 4.1.1(a), an applicant must provide reasonable assurance that the regulated activity will not change the hydroperiod of a wetland or other surface water, so as to adversely affect wetland functions or other surface water functions as follows:

- (a) Whenever portions of a system, such as constructed basins, structures, stormwater ponds, canals, and ditches, are reasonably expected to have the effect of reducing the depth, duration or frequency of inundation or saturation in a wetland or other surface water, the applicant must perform an analysis of the drawdown in water levels or diversion of water flows resulting from such activities and provide reasonable assurance that these drawdowns or diversions will not adversely impact the functions that wetlands and other surface waters provide to fish and wildlife and listed species.
- (b) Increasing the depth, duration, or frequency of inundation through changing the rate or method of discharge of water to wetlands or other surface waters or by impounding water in wetlands or other surface waters must also be addressed to prevent adverse effects to functions that wetlands

and other surface waters provide to fish and wildlife and listed species. Different types of wetlands respond differently to increased depth, duration, or frequency of inundation. Therefore, the applicant must provide reasonable assurance that activities that have the potential to increase discharge or water levels will not adversely affect the functioning of the specific wetland or other surface water subject to the increased discharge or water level.

- (c) Whenever portions of a system could have the effect of altering water levels in wetlands or other surface waters, applicants shall be required to: monitor the wetland or other surface waters to demonstrate that such alteration has not resulted in adverse impacts; or calibrate the system to prevent adverse impacts. Monitoring parameters, methods, schedules, and reporting requirements shall be specified in permit conditions.

4.2.3 Public Interest Test

In determining whether a regulated activity located in, on, or over surface waters or wetlands is not contrary to the public interest, or if such an activity significantly degrades or is within an Outstanding Florida Water, that the regulated activity is clearly in the public interest, the District shall consider and balance, and an applicant must address, the following criteria:

- (a) Whether the regulated activity will adversely affect the public health, safety, or welfare or the property of others (40E-4.302(1)(a)1., F.A.C.);
- (b) Whether the regulated activity will adversely affect the conservation of fish and wildlife, including endangered or threatened species, or their habitats (40E-4.302(1)(a)2., F.A.C.);
- (c) Whether the regulated activity will adversely affect navigation or the flow of water or cause harmful erosion or shoaling (40E-4.302(1)(a)3., F.A.C.);
- (d) Whether the regulated activity will adversely affect the fishing or recreational values or marine productivity in the vicinity of the activity (40E-4.302(1)(a)4., F.A.C.);
- (e) Whether the regulated activity will be of a temporary or permanent nature (40E-4.302(a)5., F.A.C.);
- (f) Whether the regulated activity will adversely affect or will enhance significant historical and archaeological resources under the provisions of section 267.061, F.S. (40E-4.302(1)(a)6., F.A.C.); and
- (g) The current condition and relative value of functions being performed by areas affected by the proposed regulated activity (40E-4.302(1)(a)7., F.A.C.).

4.2.3.1 Public health, safety, or welfare or the property of others

In reviewing and balancing the criterion regarding public health, safety, welfare and the property of others in paragraph 4.2.3(a), the District will evaluate whether the regulated activity located in, on, or over wetlands or other surface waters will cause:

- (a) an environmental hazard to public health or safety or improvement to public health or safety with respect to environmental issues. Each applicant must identify potential environmental public health or safety issues resulting from their project. Examples of these type of issues include: mosquito control; proper disposal of solid, hazardous, domestic or industrial waste; aids to navigation; hurricane preparedness or cleanup; environmental remediation, enhancement or restoration; and similar environmentally related issues. For example, the installation of navigational aids may improve public safety and may reduce impacts to public resources.
- (b) impacts to areas classified by the Department as approved, conditionally approved, restricted or conditionally restricted for shellfish harvesting. Activities which would cause closure or a more restrictive classification or management plan for a shellfish harvesting area would result in a negative factor in the public interest balance with respect to this criterion.
- (c) flooding or alleviate existing flooding on the property of others. There is at least a neutral factor in the public interest balance with respect to the potential for causing or alleviating flooding problems if the applicant meets the water quantity criteria in section six of this Basis of Review.
- (d) environmental impacts to the property of others. For example, the construction of a ditch that results in drawdown impacts to a wetland on an adjacent property would be an environmental impact to the property of others. The District will not consider impacts to property values or taxes.

4.2.3.2 Fish and Wildlife and their Habitats

The District's public interest review of that portion of a proposed system in, on, or over wetlands and other surface waters for impacts to "the conservation of fish and wildlife, including endangered or threatened species, or their habitats" is encompassed within the required review of the entire system under subsection 4.2.2. An applicant must always provide the reasonable assurances required under subsection 4.2.2.

4.2.3.3 Navigation, Water Flow, Erosion and Shoaling

In reviewing and balancing the criterion on navigation, erosion and shoaling in paragraph 4.2.3(c), the District will evaluate whether the regulated activity located in, on or over wetlands or other surface waters will:

- (a) significantly impede navigability or enhance navigability. The District will consider the current navigational uses of the surface waters and will not

speculate on uses which may occur in the future. Applicants proposing to construct bridges or other traversing works must address adequate horizontal and vertical clearance for the type of watercraft currently navigating the surface waters. Applicants proposing to construct docks, piers and other works which extend into surface waters must address the continued navigability of these waters. An encroachment into a marked or customarily used navigation channel is an example of a significant impediment to navigability. Applicants proposing temporary activities in navigable surface waters, such as the mooring of construction barges, must address measures for clearly marking the work as a hazard to navigation, including nighttime lighting. The addition of navigational aids may be beneficial to navigation. If and applicant has a U.S. Coast Guard permit issued pursuant to 14 U.S.C. Section 81 (1993), 33 C.F.R. Section 62 (1993) for a regulated activity in, on or over wetlands or other surface waters, submittal of this permit with the application may assist the applicant in addressing this criterion.

- (b) cause or alleviate harmful erosion or shoaling. Applicants proposing activities such as channel relocation, artificial reefs, construction of jetties, breakwaters, groins, bulkheads and beach renourishment must address existing and expected erosion or shoaling in the proposed design. Compliance with erosion control best management practices referenced in the Florida Development Manual: A Guide to Sound Land and Water Management (1988) will be an important consideration in addressing this criterion. Each permit will have a general condition which requires applicants to utilize appropriate erosion control practices and to correct any adverse erosion or shoaling resulting from the regulated activities.
- (c) significantly impact or enhance water flow. Applicants must address obstructions to sheet flow by assessing the need for structures which minimize the obstruction such as culverts or spreader swales in fill areas. Compliance with the water quantity criteria found in subsection 4.2.2.4 shall be an important consideration in addressing this criterion.

4.2.3.4 Fisheries, Recreation, Marine Productivity

In reviewing and balancing the criterion regarding fishing or recreational values and marine productivity in paragraph 4.2.3(d), the District will evaluate whether the regulated activity in, on, or over wetlands or other surface waters will cause:

- (a) adverse effects to sport or commercial fisheries or marine productivity. Examples of activities which may adversely affect fisheries or marine productivity are the elimination or degradation of fish nursery habitat, and change in ambient water temperature, change in normal salinity regime, reduction in detrital export, change in nutrient levels or other adverse effects on populations of native aquatic organisms.
- (b) adverse effects or improvements to existing recreational uses of a wetland

or other surface water. Wetlands and other surface waters may provide recreational uses such as boating, fishing, swimming, skiing, hunting and birdwatching. An example of potential adverse effects to recreational uses is the construction of a traversing work, such as a road crossing a waterway, which could impact the current use of the waterway for waterskiing and boating.

4.2.3.5 *Temporary or Permanent Nature*

When evaluating the other criteria in subsection 4.2.3, the District will consider the frequency and duration of the impacts caused by the proposed activity. Temporary impacts will be considered less harmful than permanent impacts of the same nature and extent.

4.2.3.6 *Historical and Archaeological Resources*

In reviewing and balancing the criterion regarding historical and archaeological resources in paragraph 4.2.3(f), the District will evaluate whether the regulated activity located in, on, or over wetlands or other surface waters will impact significant historical or archaeological resources. The District will provide copies of all conceptual, individual and standard general permit applications to the Division of Historical Resources of the Department of State and solicit their comments regarding whether the regulated activity may adversely affect significant historical or archaeological resources. The applicant will be required to perform an archaeological survey and to develop and implement a plan as necessary to demarcate and protect the significant historical and archaeological resources, if such resources are reasonably expected to be impacted by the regulated activity.

4.2.3.7 *Current Condition and Relative Value of Functions*

When evaluating other criteria in subsection 4.2.3, the District will consider the current condition and relative value of the functions performed by wetlands and other surface waters affected by the proposed regulated activity. Wetlands and other surface waters which have had their hydrology, water quality or vegetative composition permanently impacted due to past legal alterations or occurrences, such as infestation with exotic species, usually provide lower habitat value to fish and wildlife. However, if the wetland or other surface water is currently degraded, but is still providing some beneficial functions, consideration will be given to whether the regulated activity will further reduce or eliminate those functions. The District will also evaluate the predicted ability of the wetlands or other surface waters to maintain their current functions as part of the proposed system once it is developed. Where previous impacts to a wetland or other surface water are temporary in nature, consideration will be given to the inherent functions of these areas, relative to seasonal hydrologic changes, and expected vegetative regeneration and projected habitat functions if the use of the subject property were to remain unchanged. When evaluating impacts to mitigation sites which have not reached success pursuant to subsection 4.3.6, the District shall consider the functions that the mitigation site was intended to offset, and any additional delay or reduction in offsetting those functions that may be caused by

impacting the mitigation site. Previous construction or alteration undertaken in violation of Chapter 373, F.S., or District rule, order or permit will not be considered as having diminished the condition and relative value of a wetland or other surface water.

4.2.4 Water quality

Pursuant to paragraph 4.1.1(c), an applicant must provide reasonable assurance that the regulated activity will not violate water quality standards in areas where water quality standards apply.

Reasonable assurances regarding water quality must be provided both for the short term and the long term, addressing the proposed construction, alteration, operation, maintenance, removal and abandonment of the system. The following requirements are in addition to the water quality requirements found in section five of this Basis of Review.

4.2.4.1 Short Term Water Quality Considerations

The applicant must address the short term water quality impacts of a proposed system, including:

- (a) providing turbidity barriers or similar devices for the duration of dewatering and other construction activities in or adjacent to wetlands or other surface waters.
- (b) stabilizing newly created slopes or surfaces in or adjacent to wetlands and other surface waters to prevent erosion and turbidity.
- (c) providing proper construction access for barges, boats and equipment to ensure that propeller dredging and rutting from vehicular traffic does not occur.
- (d) maintaining construction equipment to ensure that oils, greases, gasoline, or other pollutants are not released into wetlands or other surface waters.
- (e) controlling the discharge from spoil disposal sites.
- (f) preventing any other discharge or release of pollutants during construction or alteration that will cause water quality standards to be violated.

4.2.4.2 Long Term Water Quality Considerations

The applicant must address the long term water quality impacts of a proposed system, including:

- (a) the potential of a constructed or altered water body to violate water quality standards due to its depth or configuration. For example, the depth of water bodies must be designed to insure proper mixing so that the water

quality standard for dissolved oxygen will not be violated in the lower levels of the water body, but the depth should not be so shallow that the bottom sediments are frequently resuspended by boat activity. Water bodies must be configured to prevent the creation of debris traps or stagnant areas which could result in violations of state water quality standards.

- (b) long term erosion, siltation or propeller dredging that will cause turbidity violations.
- (c) prevention of any discharge or release of pollutants from the system that will cause water quality standards to be violated.

4.2.4.3 Additional Water Quality Considerations for Docking Facilities

Docking facilities are potential sources of pollutants to wetlands and other surface waters. To provide the required reasonable assurance that water quality standards will not be violated, the following factors must be addressed by an applicant proposing the construction of a new docking facility, or the expansion of or other alteration of an existing docking facility that has the potential to adversely affect water quality:

- (a) Hydrographic information or studies shall be required for docking facilities of greater than ten boat slips. Hydrographic information or studies also may be required for docking facilities of less than ten slips, dependent upon the site specific features described in paragraph 4.2.4.3(b) below. In all cases, the need for a hydrographic study, and the complexity of the study, will be dependent upon the specific project design and the specific features of the project site.
- (b) The purpose of the hydrographic information or studies is to document the flushing time (the time required to reduce the concentration of a conservative pollutant to ten percent of its original concentration) of the water at the docking facility. This information is used to determine the likelihood that the facility will accumulate pollutants to the extent that water quality violations will occur. Generally, a flushing time of less than or equal to four days is the maximum that is desirable for docking facilities. However, the evaluation of the maximum desirable flushing time also takes into consideration the size (number of slips) and configuration of the proposed docking facility; the amplitude and periodicity of the tide; the geometry of the subject waterbody; the circulation and flushing of the waterbody; the quality of the waters at the project site; the type and nature of the docking facility; the services provided at the docking facility; and the number and type of other sources of water pollution in the area.
- (c) The level and type of hydrographic information or studies that will be required for the proposed docking facility will be determined based upon an analysis of site-specific characteristics. As compared to sites that flush in less than four days, sites where the flushing time is greater than four days generally will require additional, more complex levels of hydrographic

studies or information to determine whether water quality standards can be expected to be violated by the facility. The degree and complexity of the hydrographic study will be dependent upon the types of considerations listed in paragraph 4.2.4.3.(b), including the potential for the facility, based on its design and location, to add pollutants to the receiving waters. Types of information that can be required include site-specific measurements of: waterway geometry, tidal amplitude, the periodicity of forces that drive water movement at the site, and water tracer studies that document specific circulation patterns.

- (d) The applicant shall document, through hydrographic information or studies, that pollutants leaving the site of the docking facility will be adequately dispersed in the receiving water body so as to not cause violations of water quality standards based on circulation patterns and flushing characteristics of the receiving water body.
- (e) In all cases, the hydrographic studies shall be designed to document the hydrographic characteristics of the project site and surrounding waters. All hydrographic studies must be based on the factors described in paragraphs (a)-(d) above. An applicant should consult with the District prior to conducting such a study.
- (f) Fueling facilities shall be located and operated so that the potential for spills or discharges to surface waters and wetlands is minimized. Containment equipment and emergency response plans must be provided to ensure that the effects of spills are minimized.
- (g) The disposal of domestic wastes from boat heads, particularly from liveaboard vessels, must be addressed to prevent improper disposal into wetlands or other surface waters. A liveaboard vessel shall be defined as a vessel docked at the facility that is inhabited by a person or persons for any five consecutive days or a total of ten days within a 30 day period.
- (h) The disposal of solid waste, such as garbage and fish cleaning debris, must be addressed to prevent disposal into wetlands or other surface waters.
- (i) Pollutant leaching characteristics of materials such as pilings and anti-fouling paints used on the hulls of vessels must be addressed to ensure that any pollutants that leach from the structures and vessels will not cause violations of water quality standards given the flushing at the site and the type, number and concentration of the likely sources of pollutants.

4.2.4.4 Temporary Mixing Zones

A temporary mixing zone for water quality during construction or alteration may be requested by the applicant. The District shall review such request pursuant to sections 62-4.242 and 62-4.244(5), in accordance with the Operating Agreement

Concerning Regulation Under Part IV, Chapter 373, F.S. adopted by reference in Section 40E-4.091, F.A.C.

4.2.4.5 *Where Ambient Water Quality does not Meet State Water Quality Standards*

If the site of the proposed activity currently does not meet state water quality standards, the applicant must demonstrate compliance with the water quality standards by meeting the provisions in 4.2.4.1, 4.2.4.2, and 4.2.4.3, as applicable, and for the parameters which do not meet water quality standards, the applicant must demonstrate that the proposed activity will not contribute to the existing violation. If the proposed activity will contribute to the existing violation, mitigation may be proposed as described in subsection 4.3.1.4.

4.2.5 *Class II Waters; Waters Approved for Shellfish Harvesting*

The special value and importance of shellfish harvesting waters to Florida's economy as existing or potential sites of commercial and recreational shellfish harvesting and as a nursery area for fish and shell fish is recognized by the District. In accordance with paragraph 4.1.1(d), the District shall:

- (a) deny a permit for a regulated activity in Class II waters which are not approved for shellfish harvesting unless the applicant submits a plan or proposes a procedure to protect those waters and waters in the vicinity. The plan or procedure shall detail the measures to be taken to prevent significant damage to the immediate project area and the adjacent area and shall provide reasonable assurance that the standards for Class II waters will not be violated;
- (b) deny a permit for a regulated activity in any class of waters where the location of the system is adjacent or in close proximity to Class II waters, unless the applicant submits a plan or proposes a procedure which demonstrates that the regulated activity will not have a negative effect on the Class II waters and will not result in violations of water quality standards in the Class II waters; and
- (c) deny a permit for a regulated activity that is located directly in Class II or Class III waters which are classified by the Department as approved, restricted, conditionally approved or conditionally restricted for shellfish harvesting. However, the District may issue permits or certifications for maintenance dredging of navigational channels, the construction of shoreline protection structures, the installation of transmission and distribution lines for carrying potable water, electricity or communication cables in rights-of-way previously used for such lines, for clam and oyster culture, and for private, single family boat docks that meet the following criteria for installation in such waters:
 - 1. there shall be no more than two boats moored at the dock;
 - 2. no overboard discharges of trash, human or animal waste, or fuel shall occur at the dock;

3. any non-water dependent structures, such as gazebos or fish cleaning stations, shall be located on the uplands;
4. prior to the mooring of any boat at the dock, there shall be existing structures with toilet facilities located on the uplands;
5. any proposed shelter shall not have enclosed sides;
6. the mooring area shall be located in waters sufficiently deep to prevent bottom scour by boat propellers; and
7. any structures located over grassbeds shall be designed so as to allow for the maximum light penetration practicable.

4.2.6 Vertical seawalls

- (a) The construction of vertical seawalls in estuaries or lagoons is prohibited unless one of the following conditions exists:
 1. the proposed construction is located within a port as defined in Section 315.02, F.S., or Section 403.021, F.S.;
 2. the proposed construction is necessary for the creation of a marina, the vertical seawalls are necessary to provide access to watercraft, or the proposed construction is necessary for public facilities;
 3. the proposed construction is to be located within an existing manmade canal and the shoreline of such canal is currently occupied in whole or in part by vertical seawalls; or
 4. the proposed construction is to be conducted by a public utility when such utility is acting in the performance of its obligation to provide service to the public.
- (b) When considering an application for a permit to repair or replace an existing vertical seawall, the District shall generally require such seawall to be faced with riprap material, or to be replaced entirely with riprap material unless a condition specified in subparagraphs 1.-4. above exists. Nothing in this subsection shall be construed to hinder any activity previously exempt or permitted, or those activities permitted pursuant to Chapter 161, F.S.

4.2.7 Secondary Impacts

Pursuant to paragraph 4.1.1(f), an applicant must provide reasonable assurances that a regulated activity will not cause adverse secondary impacts to the water resource, as described in paragraphs (a) through (d), below. Aquatic or wetland dependent fish and wildlife are an integral part of the water resources which the District is authorized to protect under Part IV, Chapter 373, F.S. Those aquatic or wetland dependent species which are listed as threatened, endangered

or of special concern are particularly in need of protection.

A proposed system shall be reviewed under this criterion by evaluating the impacts to: wetland and surface water functions identified in subsection 4.2.2; water quality; upland habitat for aquatic or wetland dependent listed species; and historical and archaeological resources. Deminimis or remotely related secondary impacts will not be considered. Applicants may propose measures such as preservation to prevent secondary impacts. Such preservation shall comply with the land preservation provisions of subsection 4.3.8. If such secondary impacts can not be prevented, the applicant may propose mitigation measures as provided for in subsections 4.3 through 4.3.8.

This secondary impact criterion consists of the following four parts:

- (a) An applicant shall provide reasonable assurance that the secondary impacts from construction, alteration, and intended or reasonably expected uses of a proposed system will not cause violations of water quality standards or adverse impacts to the functions of wetlands or other surface waters, as described in subsection 4.2.2.

Impacts such as boat traffic generated by a proposed dock, boat ramp or dry dock facility, which causes an increased threat of collision with manatees; impacts to wildlife from vehicles using proposed roads in wetlands or surface waters; impacts to water quality associated with the use of septic tanks or propeller dredging by boats and wakes from boats; and impacts associated with docking facilities as described in paragraphs 4.2.4.3(f) and (h), will be considered relative to the specific activities proposed and the potential for such impacts. Impacts of groundwater withdrawals upon wetlands and other surface waters that result from the use of wells permitted pursuant to Chapter 40E-2, F.A.C., shall not be considered under rules adopted pursuant to Part IV, Chapter 373, F.S., since these impacts are considered in the consumptive use permit application process.

Secondary impacts to the habitat functions of wetlands associated with adjacent upland activities will not be considered adverse if buffers, with a minimum width of 15' and an average width of 25', are provided abutting those wetlands that will remain under the permitted design, unless additional measures are needed for protection of wetlands used by listed species for nesting, denning, or critically important feeding habitat. The mere fact that a species is listed does not imply that all of its feeding habitat is critically important. Buffers shall remain in an undisturbed condition, except for drainage features such as spreader swales and discharge structures, provided the construction or use of these features does not adversely impact wetlands. Where an applicant elects not to utilize buffers of the above described dimensions, buffers of different dimensions, measures other than buffers or information may be proposed to provide the required reasonable assurance.

Deminimis or remotely related secondary impacts such as changes in air quality due to increased vehicular traffic associated with road construction will not be considered unacceptable.

- (b) An applicant shall provide reasonable assurance that the construction, alteration, and intended or reasonably expected uses of a system will not adversely impact the ecological value of uplands to aquatic or wetland dependent listed animal species for enabling existing nesting or denning by these species, but not including:
1. areas needed for foraging; or
 2. wildlife corridors, except for those limited areas of uplands necessary for ingress and egress to the nest or den site from the wetlands or other surface water;

Table 4.2.7-1 identifies those aquatic or wetland dependent listed species that use upland habitats for nesting or denning.

For those aquatic or wetland dependent listed animal species for which habitat management guidelines have been developed by the U.S. Fish and Wildlife Service (USFWS) or the Florida Game and Fresh Water Fish Commission (FGFWFC), compliance with these guidelines will provide reasonable assurance that the proposed system will not adversely impact upland habitat functions described in paragraph (b). For those aquatic or wetland dependent listed animal species for which habitat management guidelines have not been developed or in cases where an applicant does not propose to use USFWS or FGFWFC habitat management guidelines, the applicant may propose measures to mitigate adverse impacts to upland habitat functions described in paragraph (b), provided to aquatic or wetland dependent listed animal species.

- (c) In addition to evaluating the impacts in the area of any dredging and filling in, on, or over wetlands or other surface waters, and as part of the balancing review under subsection 4.2.3, the District will consider any other relevant activities that are very closely linked and causally related to any proposed dredging or filling which will cause impacts to significant historical and archaeological resources.
- (d) An applicant shall provide reasonable assurance that the following future activities will not result in water quality violations or adverse impacts to the functions of wetlands and other surface waters as described in subsection 4.2.2.:
1. additional phases or expansion of the proposed system for which plans have been submitted to the District or other governmental agencies; and
 2. on-site and off-site activities regulated under Part IV, Chapter 373, F.S., or activities described in section 403.813(2), F.S., that are very closely linked and causally related to the proposed system.

As part of this review, the District will also consider the impacts of the intended or reasonably expected uses of the future activities on water quality and wetland and other surface water functions.

In conducting the analysis under paragraph (d)2., above, the District will consider those future projects or activities which would not occur but for the proposed system, including where the proposed system would be considered a waste of resources should the future project or activities not be permitted.

Where practicable, proposed systems shall be designed in a fashion which does not necessitate future impacts to wetland and other surface water functions. If future phases or project expansion have the potential to cause adverse secondary impacts, applicants must provide sufficient conceptual design information to provide reasonable assurance that these impacts can be successfully eliminated or offset.

System expansions and future system phases will be considered in the secondary impact analysis, and if the District determines that future phases of a system involve impacts that appear not to meet permitting criteria, the current application may be denied unless the applicant can provide reasonable assurance that those future phases can comply with permitting criteria. One way for applicants to establish that future phases or system expansions do not have adverse secondary impacts is for the applicant to obtain a conceptual approval permit for the entire project.

4.2.8 Cumulative Impacts

Pursuant to paragraph 4.1.1(g), an applicant must provide reasonable assurances that a regulated activity will not cause unacceptable cumulative impacts upon wetlands and other surface waters within the same drainage basin as the regulated activity for which a permit is sought. The impact on wetlands and other surface waters shall be reviewed by evaluating the impacts to water quality as set forth in subsection 4.1.1(c) and by evaluating the impacts to functions identified in subsection 4.2.2. The drainage basins within the District are identified on Figure 4.2.8-1.

An applicant must provide reasonable assurance that the proposed system, when considered with the following activities, will not result in unacceptable cumulative impacts to water quality or the functions of wetlands and other surface waters, within the same drainage basin:

- (a) Projects which are existing or activities regulated under Part IV, Chapter 373 which are under construction, or projects for which permits or determinations pursuant to Sections 373.421 or 403.914 have been sought.
- (b) Activities which are under review, approved, or vested pursuant to Section 380.06 or other activities regulated under Part IV, Chapter 373 which may reasonably be expected to be located within wetlands or other surface waters, in the same drainage basin, based upon the comprehensive plans, adopted pursuant to Chapter 163 of the local governments having jurisdiction over the activities, or applicable land use restrictions and regulations.

Only those activities listed in paragraphs (a) and (b) which have similar types of adverse impacts to those which will be caused by the proposed system will be considered. (All citations in paragraphs (a) and (b) refer to provisions of Florida Statutes.)

The cumulative impact evaluation is conducted using an assumption that reasonably expected

future applications with like impacts will be sought, thus necessitating equitable distribution of acceptable impacts among future applications.

4.2.8.1 Cumulative impacts are considered unacceptable when the proposed system, considered in conjunction with the past, present, and future activities as described in 4.2.8, as set forth in subsection 4.1.1(c), would result in a violation of state water quality standards or significant adverse impacts to functions of wetlands or other surface waters, identified in subsection 4.2.2, within the same drainage basin when considering the basin as a whole.

4.2.8.2 Applicants may propose measures such as preservation to prevent cumulative impacts. Such preservation shall comply with the land preservation provisions in subsection 4.3.8. If unacceptable cumulative impacts are expected to occur, the applicant may propose mitigation measures as provided for in sections 4.3 through 4.3.8.

**TABLE 4.2.7-1
LISTED WILDLIFE SPECIES THAT ARE AQUATIC OR WETLAND DEPENDENT
AND THAT USE UPLAND HABITATS FOR NESTING OR DENNING**

Fishes

Species of Special Concern

Rivulus marmoratus (mangrove rivulus; rivulus)

Reptiles

Endangered

Chelonia mydas mydas (Atlantic green turtle)
Crocodylus acutus (American crocodile)
Dermochelys coriacea (leatherback turtle; leathery turtle)
Eretmochelys imbricata imbricata (Atlantic hawksbill turtle)
Kinosternon bauri (striped mud turtle) LISTED ONLY IN LOWER KEYS
Lepidochelys kempi (Atlantic ridley turtle)

Threatened

Caretta caretta caretta (Atlantic loggerhead turtle)
Thamnophis sauritus sackeri (Florida (Keys) ribbon snake) LISTED ONLY IN LOWER KEYS

Species of special concern

Alligator mississippiensis (American alligator)
Graptemys barbouri (Barbour's map turtle; Barbour's sawback turtle)
Macrochelys temminckii (alligator snapping turtle)
Pseudemys concinna suwanniensis (Suwannee cooter)

Birds

Endangered

Ammodramus maritimus mirabilis (Cape Sable seaside sparrow)
Mycteria americana (wood stork)
Rostrhamus sociabilis (snail kite)

Threatened

Charadrius alexandrinus tenuirostris (southeastern snowy plover)
Charadrius melodus (piping plover)
Columba leucocephalus (white-crowned pigeon)
Grus canadensis pratensis (Florida sandhill crane)
Haliaeetus leucocephala (bald eagle)
Picoides borealis (red-cockaded woodpecker) THIS SPECIES IS WETLAND DEPENDENT
ONLY IN LEE, COLLIER, AND CHARLOTTE COUNTIES
Polyborus plancus audubonii (Audubon's crested caracara)
Sterna antillarum (least tern)
Sterna dougallii (roseate tern)

Species of special concern

Ajaia ajaia (roseate spoonbill)
Ammodramus maritimus juncicollis (Wakulla seaside sparrow)
Ammodramus maritimus peninsulae (Scott's seaside sparrow)
Aramus quarauna (limpkin)
Cistothorus palustris griseus (Worthington's marsh wren)
Cistothorus palustris marianae (Marian's marsh wren)
Egretta caerulea (little blue heron)
Egretta rufescens (reddish egret)
Egretta thula (snowy egret)
Egretta tricolor (tricolored heron; Louisiana heron)
Eudocimus albus (white ibis)
Haematopus palliatus (American oystercatcher)
Pandion haliaetus (osprey) LISTED ONLY IN MONROE COUNTY
Pelecanus occidentalis (brown pelican)
Rhynchops niger (black skimmer)

MammalsEndangered

Felis concolor coryi (Florida panther)
Microtus pennsylvanicus dukecambelli (Duke's saltmarsh vole; Florida saltmarsh vole)
Myotis grisescens (gray bat)
Myotis sodalis (Indiana bat)
Odocoileus virginianus clavium (Key deer; toy deer)
Oryzomys argentatus (silver rice rat)
Sylvilagus palustris hefneri (Lower Keys marsh rabbit)

Threatened

Mustela vison evergladensis (Everglades mink)
Sciurus niger avicennia (Big Cypress fox squirrel; mangrove fox squirrel)
Ursus americanus floridanus (Florida black bear)

Species of special concern

Oryzomys palustris sanibeli (Sanibel Island rice rat)
Sorex longirostris eionis (Homosassa shrew)

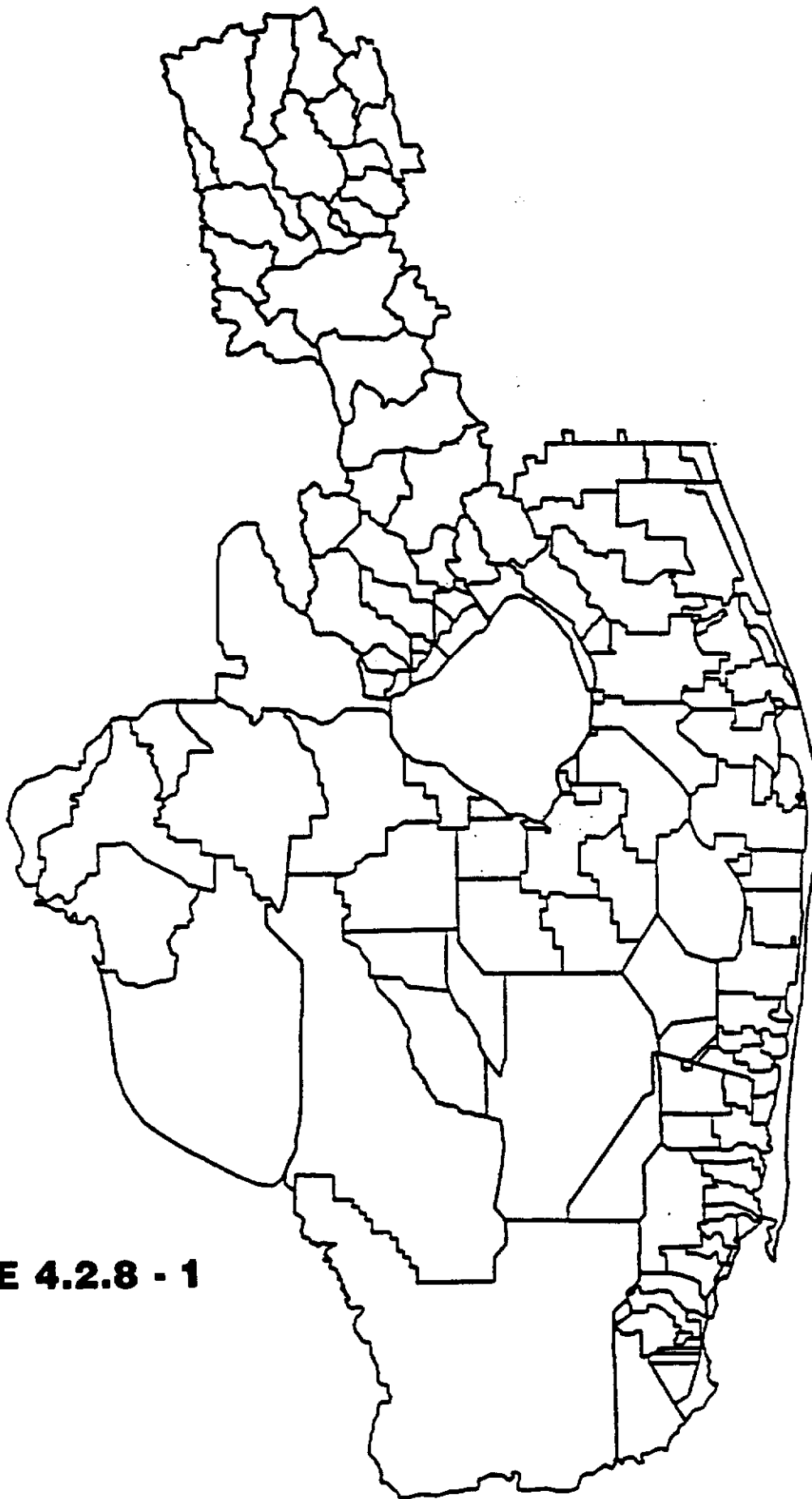


FIGURE 4.2.8 - 1

4.3 Mitigation -

Protection of wetlands and other surface waters is preferred to destruction and mitigation due to the temporal loss of ecological value and uncertainty regarding the ability to recreate certain functions associated with these features. Mitigation will be approved only after the applicant has complied with the requirements of subsection 4.2.1 regarding practicable modifications to eliminate or reduce adverse impacts. However, any mitigation proposal submitted by an applicant shall be reviewed concurrently with the analysis of any modifications pursuant to subsection 4.2.1. This section establishes criteria to be followed in evaluating mitigation proposals.

Mitigation as described in sections 4.3 - 4.3.8 is required only to offset the adverse impacts to the functions as identified in sections 4.2 - 4.2.8. caused by regulated activities. In certain cases, mitigation cannot offset impacts sufficiently to yield a permissible project. Such cases often include activities which significantly degrade Outstanding Florida Waters, adversely impact habitat for listed species, or adversely impact those wetlands or other surface waters not likely to be successfully recreated.

Applicants are encouraged to consult with District staff in pre-application conferences or during the application process to identify appropriate mitigation options.

4.3.1 Types of Mitigation

Mitigation usually consists of restoration, enhancement, creation, or preservation of wetlands, other surface waters or uplands. In some cases, a combination of mitigation types is the best approach to offset adverse impacts resulting from the regulated activity.

4.3.1.1 In general, mitigation is best accomplished through creation, restoration, enhancement, or preservation of ecological communities similar to those being impacted. However, when the area proposed to be impacted is degraded, compared to its historic condition, mitigation is best accomplished through creation, restoration, enhancement or preservation of the ecological community which was historically present. Mitigation involving other ecological communities is acceptable if impacts are offset and the applicant demonstrates that greater improvement in ecological value will result.

4.3.1.2 In general, mitigation is best accomplished when located on-site or in close proximity to the area being impacted. Off-site mitigation will only be accepted if adverse impacts are offset and the applicant demonstrates that:

- (a) on-site mitigation opportunities are not expected to have comparable long-term viability due to such factors as unsuitable hydrologic conditions or ecologically incompatible existing adjacent land uses or future land uses identified in a local comprehensive plan adopted according to Chapter 163, F.S.; or
- (b) off-site mitigation would provide greater improvement in ecological value than on-site mitigation.

One example of a project that would be expected to meet the criteria of paragraphs

(a) or (b) above is a linear project which cannot effectively implement on-site mitigation due to documented right-of-way constraints.

- 4.3.1.3** Mitigation through participation in a mitigation bank shall be in accordance with subsection 4.4.
- 4.3.1.4** In instances where an applicant is unable to meet water quality standards because existing ambient water quality does not meet standards and the system will contribute to this existing condition, mitigation for water quality impacts can consist of water quality enhancement. In these cases, the applicant must implement mitigation measures that will cause net improvement of the water quality in the receiving waters for those parameters which do not meet standards.
- 4.3.1.5** To offset adverse secondary impacts from regulated activities to habitat functions that uplands provide to listed species evaluated as provided in paragraph 4.2.7(b), mitigation can include the implementation of management plans, participation in a wildlife mitigation park established by the FGFWFC, or other measures. Measures to offset adverse secondary impacts on wetlands and other surface waters resulting from use of a system can include the incorporation of culverts or bridged crossings designed to facilitate wildlife movement, fencing to limit access, reduced speed zones, or other measures designed to offset the secondary impact.
- 4.3.1.6** Except as provided in subsection 373.414(6), mitigation for certain mining activities shall be in accordance with subsection 373.414(6), F.S.
- 4.3.1.7** Mitigation or reclamation required or approved by other agencies for a specific project will be acceptable to the District to the extent that such mitigation or reclamation fulfills the requirements of sections 4.3-4.3.8 and offsets adverse impacts of the same project in accordance with the criteria in sections 4.2-4.2.8.2
- 4.3.1.8** Innovative mitigation proposals which deviate from the standard practices described in sections 4.3-4.3.6 shall be considered on a case-by-case basis. The donation of money is not considered to be an acceptable method of mitigation, unless cash payments are specified for use in a District or Department of Environmental Protection endorsed environmental preservation, enhancement or restoration project and the payments initiate a project or supplement an ongoing project. The project or portion of the project funded by the donation of money must offset the impacts of the proposed system.

4.3.2 Mitigation Ratio Guidelines

Subsections 4.3.2 - 4.3.2.4 establish ratios for the acreage of mitigation required compared to the acreage which is adversely impacted by regulated activities. Ranges of ratios are provided below for certain specific types of mitigation, including creation, restoration, enhancement and preservation. Mitigation ratios for wetlands which have a 50% or greater coverage of melaleuca (*Melaleuca quinquenervia*), will be determined pursuant to subsection 4.3.2.4. and other provisions of this section. The difference between the ranges of ratios provided for mitigation types is based on the degree of improvement in ecological value expected from each type.

Creation and restoration are assigned the lowest range of ratios as these activities, when successfully conducted, add new wetlands or other surface waters which provide the same or similar functions as the area being adversely impacted. The range of ratios established for enhancement is higher than that for creation and restoration, as the area being enhanced currently provides a degree of the desired functions, and this type of mitigation serves to increase, rather than create, those functions. Preservation differs from the other types of mitigation in that it does not serve to improve the existing ecological value of an area in the short term. However, preservation does provide benefits as it can ensure that the values of the preserved area are protected and maintained in the long term, particularly when these values are not fully protected under existing regulatory programs. Therefore, the range of ratios established for preservation is higher than those for other types of mitigation. These ratios are provided as guidelines for preliminary planning purposes only. The actual ratio needed to offset adverse impacts may be higher or lower based on a consideration of the factors listed in subsections 4.3.2.1 and 4.3.2.2. For example, in instances where the proposed system results in only a small loss of ecological value in the impacted area, such as cases involving impacts to areas of low ecological value or cases where the proposed system results in a small reduction of ecological value of the impacted area, then the actual mitigation ratio would normally be in the lower end of or below the range. For other types of mitigation, ratios will be determined based upon the reduction in quality and relative value of the functions of the areas adversely impacted as compared to the expected improvement in quality and value of the functions of the mitigation area.

4.3.2.1 *Creation, Restoration and Enhancement*

When considering creation, restoration and enhancement as mitigation, the following factors will be considered to determine whether the mitigation proposal will offset the proposed impacts and to determine the appropriate mitigation ratio:

- (a) The reduction in quality and relative value of the function of the areas adversely impacted, including the factors listed in subsection 4.2.2.3, as compared to the proposed improvement in quality and value of the functions of the area to be created, restored or enhanced.
- (b) Any special designation or classification of the affected area.
- (c) The presence and abundance of nuisance and exotic plants within the area to be adversely impacted.
- (d) The hydrologic condition of the area to be adversely impacted and the degree to which it has been altered relative to the historic condition.
- (e) The length of time expected to elapse before the functions of the area adversely impacted will be offset.
- (f) The likelihood of mitigation success.
- (g) For mine reclamation activities subject to Chapter 211, F.S., Part II, whether the ratio is consistent with the mine reclamation plan submitted pursuant to Chapter 378, F.S.

4.3.2.1.1 Creation and restoration have the potential to result in similar benefits, if they can be successfully accomplished. Therefore, the ratio ranges given below for these two types of mitigation are the same. Restoration is usually preferred over creation as it often has a greater chance of success due to soil characteristic, hydrologic regime, landscape position or other factors that favor re-establishment of wetland or other surface water communities. Restoration ratios will generally be at the lower end of the ratio ranges within the guidelines below. The following ratio guidelines will be used to estimate the acreage of wetland restoration or creation required:

- (a) Mangrove swamps, cypress swamps, and hardwood swamps - 2:1 to 5:1 (acres created or restored: acres impacted).
- (b) Saltwater marshes and freshwater marshes - 1.5:1 to 4:1 (acres created or restored: acres impacted).

4.3.2.1.2 The ratio guidelines for use in the estimation of the acreage of wetland enhancement will range from 4:1 to 20:1 (acres enhanced: acres impacted).

4.3.2.2 Preservation

- (a) Preservation of important ecosystems can provide an improved level of protection over current regulatory programs. The District will consider as mitigation the preservation, by donation or conservation easement or other comparable land use restriction, of wetlands, other surface waters, or uplands. Conservation easements or restrictions must be consistent with the requirements of subsection 4.3.8. In many cases it is not expected that preservation alone will be sufficient to offset adverse impacts. Preservation will most frequently be approved in combination with other mitigation measures.
- (b) When considering preservation as mitigation, the following factors will be considered to determine whether the preservation parcel would offset the proposed impacts and to determine the appropriate mitigation ratio.
 - 1. The reduction in quality and relative value of the functions of the areas adversely impacted, including those factors listed in subsection 4.2.2.3, as compared to the quality and value of the functions of the area to be preserved and the additional protection provided to these functions by the proposed preservation. Factors used in determining this additional level of protection include the extent and likelihood that the land to be preserved would be adversely impacted if it were not preserved, considering the protection provided by existing regulations and land use restrictions.
 - 2. Any special designation or classification of the affected area.
 - 3. The presence and abundance of nuisance and exotic plants within

the area to be adversely impacted.

4. The ecological and hydrological relationship between wetlands, other surface waters, and uplands to be preserved.
5. The extent to which proposed management activities on the area to be preserved promote natural ecological conditions, such as natural fire patterns.
6. The proximity of the area to be preserved to areas of national, state, or regional ecological significance, such as national or state parks, Outstanding Florida Waters, and other regionally significant ecological resources or habitats, such as lands acquired or to be acquired through governmental or non-profit land acquisition programs for environmental conservation, and whether the areas to be preserved include corridors between these habitats.
7. The extent to which the preserved area provides habitat for fish and wildlife, especially listed species.
8. Any special designation or classification of the area to be preserved.
9. The extent of invasion of nuisance and exotic species within the area to be preserved.

(c) Wetland and other surface water preservation ratios. Since wetlands and other surface waters are, to a large extent, protected by existing regulations, the ratio guideline for preservation of wetlands and other surface waters is substantially higher than for restoration and creation. The ratio guideline for wetland and other surface water preservation will be 10:1 to 60:1, (acreage wetlands and other surface waters preserved to acreage impacted).

(d) Upland preservation ratios. Many wildlife species that are aquatic or wetland dependent spend critical portions of their life cycles in uplands. Uplands function as the contributing watershed to wetlands and are necessary to maintain the ecological value of those wetlands. Because of these values, the preservation of certain uplands may be appropriate for full or partial mitigation of wetland impacts, and impacts to uplands that are used by listed aquatic or wetland dependent species as described in subsection 4.2.7(b). The ratio guideline for upland preservation will be 3:1 to 20:1 (acreage of uplands preserved to acreage impacted).

4.3.2.3 To the extent that the area to be preserved offsets the adverse impact and otherwise meets the requirements of this section, wetland, other surface water, or upland habitat which is proposed to be preserved in order to prevent secondary or cumulative impacts can be considered as part of the mitigation plan to offset other adverse

impacts of the system.

- 4.3.2.4** (a) When District staff evaluate mitigation proposals for melaleuca-dominated wetlands, the following factors, in addition to those in subsections 4.3.2.1 and 4.3.2.2, will be considered to determine whether the mitigation will offset the proposed impacts and to determine the appropriate mitigation ratio:
1. location and proximity of the property to native habitat including the ecological condition of the adjacent lands; and
 2. degree of melaleuca infestation;
- (b) Mitigation ratio guidelines for wetlands which have a 50% or greater coverage of melaleuca shall be as follows:
1. Creation/Restoration 0.25:1 to 0.75:1
 2. Enhancement 0.7:1 to 3.0:1
 3. Wetland Preservation 1.7:1 to 9.0:1
 4. Upland Preservation 0.5:1 to 3.0:1
- (c) Melaleuca within the wetland to be impacted shall be mapped in units not larger than 1/2 acre which differentiate coverages of 50%-75% and 76%-100%. The landowner may elect to measure coverage in more detail. The District shall allow the use of larger mapping units when the landowner can demonstrate that:
1. 1/2 acre mapping units will impose an economic hardship due to the large size of the wetland impact areas; and
 2. Mapping in larger units will not result in additional acreage qualifying for the ratios in this subsection.

The coverage of melaleuca shall be defined as the absolute percentage of the area in question that lies under the crown of a melaleuca tree with a one inch or greater trunk diameter at breast height. The crown of each melaleuca tree shall be considered a solid shape without regard for holes or openings among the leaves and branches. Any valid vegetative sampling method shall be acceptable for estimating melaleuca coverage, including visual observation, use of random sample points, a grid of points, or line or belt transects. (See Bonham, C.D. 1989, *Measurements for Terrestrial Vegetation* for guidance in estimating coverage.) Aerial photography may be used to complement on-the-ground estimates of melaleuca coverage for large tracts.

- (d) Mitigation ratios for wetlands which have less than a 50% coverage of melaleuca shall be determined pursuant to the guidelines set forth in sections 4.3.2.1.1, 4.3.2.1.2 and 4.3.2.2.

4.3.3 Mitigation Proposals

4.3.3.1 Applicants shall provide reasonable assurance that proposed mitigation will:

- (a) offset adverse impacts due to regulated activities; and
- (b) achieve mitigation success by providing viable and sustainable ecological and hydrological functions.

4.3.3.2 Applicants shall submit detailed plans describing proposed construction, establishment, and management of mitigation areas. These plans shall include the following information, as appropriate for the type of mitigation proposed:

- (a) A soils map of the mitigation area and other soils information pertinent to the specific mitigation actions proposed.
- (b) A topographic map of the mitigation area and adjacent hydrologic contributing and receiving areas.
- (c) A hydrologic features map of the mitigation area and adjacent hydrologic contributing and receiving areas.
- (d) A description of current hydrologic conditions affecting the mitigation area.
- (e) A map of vegetation communities in and around the mitigation area.
- (f) Construction drawings detailing proposed topographic alterations and all structural components associated with proposed activities.
- (g) Proposed construction activities, including a detailed schedule for implementation.
- (h) A vegetation planting scheme if planting is proposed, and schedule for implementation.
- (i) Sources of plants and soils used in wetland creation.
- (j) Measures to be implemented during and after construction to avoid adverse impacts related to proposed activities.
- (k) A management plan comprising all aspects of operation and maintenance, including water management practices, vegetation establishment, exotic and nuisance species control, fire management, and control of access.

- (l) A proposed monitoring plan to demonstrate mitigation success.
- (m) A description of the activities proposed to control exotic and nuisance species should these become established in the mitigation area. The mitigation proposal must include reasonable measures to assure that these species do not invade the mitigation area in such numbers as to affect the likelihood of success of the project.
- (n) a description of anticipated site conditions in and around the mitigation area after the mitigation plan is successfully implemented.
- (o) a comparison of current fish and wildlife habitat to expected habitat after the mitigation plan is successfully implemented.
- (p) For mitigation plans with projected implementation costs in excess of \$25,000.00, an itemized estimate of the cost of implementing mitigation as set forth in subsection 4.3.7.7.

4.3.4 Monitoring Requirements for Mitigation Areas

Applicants shall monitor the progress of mitigation areas until success can be demonstrated as provided in subsection 4.3.6. Monitoring parameters, methods, schedules, and reporting requirements will be specified in permit conditions.

4.3.5 Protection of Mitigation Areas

Applicants shall propose and be responsible for implementing methods that assure that mitigation areas will not be adversely impacted by incidental encroachment or secondary activities which might compromise mitigation success.

4.3.6 Mitigation Success

Due to the wide range of types of projects which may be proposed for mitigation, specific success criteria will be determined on a case-by-case basis. Mitigation success will be measured in terms of whether the objectives of the mitigation can be realized. The success criteria to be included in the permit conditions will specify the minimum requirements necessary to attain a determination of success. The mitigation shall be deemed successful by the District when all applicable water quality standards are met, the mitigation area has achieved viable and sustainable ecological and hydrological functions and the specific success criteria contained in the permit are met. If success is not achieved within the timeframe specified within the permit, remedial measures shall be required. Monitoring and maintenance requirements shall remain in effect until success is achieved.

4.3.7 Financial Responsibility for Mitigation

As part of compliance with paragraph 40E-4.301(1)(j), F.A.C., where an applicant proposes mitigation, the applicant shall provide proof of financial responsibility to:

- (a) conduct the mitigation activities;
- (b) conduct any necessary management of the mitigation site;
- (c) conduct monitoring of the mitigation; and
- (d) conduct any necessary corrective action indicated by the monitoring.

4.3.7.1 Applicants Not Subject to Financial Responsibility Requirements

The following applicants shall not be subject to the financial responsibility requirements in subsections 4.3.7-4.3.7.9:

- (a) Applicants whose mitigation is deemed successful pursuant to subsection 4.3.6 of this Basis of Review prior to undertaking the construction activities authorized under the permit issued pursuant to Part IV, Chapter 373, F.S.
- (b) Applicants whose mitigation is estimated to cost less than \$25,000.00.
- (c) Federal, state, county and municipal governments, state political subdivisions, investor-owned utilities regulated by the Public Service Commission, and rural electric cooperatives.
- (d) mitigation banks which comply with the financial responsibility provisions of section 4.4.10 of this Basis of Review.

4.3.7.2 *Amount of financial responsibility*

The amount of financial responsibility provided by the applicant shall be in an amount equal to 110 percent of the cost estimate determined pursuant to subsection 4.3.7.8 below, for each phase of the mitigation plan submitted under the requirements of sections 4.3 - 4.3.8.

4.3.7.3 *Documentation*

The permit applicant shall provide draft documentation of the required financial responsibility mechanism described below, and shall submit to the District the executed or finalized documentation within the time frames specified in the permit.

4.3.7.4 *General Terms for Financial Responsibility Mechanisms*

In addition to the specific provisions regarding financial responsibility mechanisms set forth in subsection 4.3.7.6 below, the following, as they relate to the specific mechanism proposed, shall be complied with:

- (a) The form and content of all financial responsibility mechanisms shall be approved by the District.

- (b) The financial mechanisms shall name the District as sole beneficiary or shall be payable solely to the District. The original financial responsibility mechanism shall be retained by the District.
- (c) The financial responsibility mechanisms shall be established with a state or national bank, savings and loan association, or other financial institution licensed in this state. In the case of letters of credit, the letter of credit must be issued by an entity which has authority to issue letters of credit and whose letter of credit operations are regulated and examined by a federal or state agency. In the case of a surety bond, the surety bond must be issued by a surety company registered with the state of Florida.
- (d) The financial responsibility mechanisms shall be effective on or prior to the date that the activity authorized by the permit commences and shall continue to be effective through the date of notification of final release by the District in accordance with subsection 4.3.7.7.2 below of this Basis of Review.
- (e) Prior written approval from the District shall be obtained before withdrawing or transferring any portion of the funds therein.
- (f) The financial responsibility mechanisms shall provide that they can not be revoked, terminated or cancelled. Within 90 days of receipt by the permittee of actual or constructive notice of revocation, termination or cancellation of a financial responsibility mechanism or other actual or constructive notice of cancellation, the permittee shall provide an alternate financial responsibility mechanism which meets the requirements of subsections 4.3.7 - 4.3.7.9.

4.3.7.5 If the permittee fails to comply with the terms and conditions of the permit, subsection 4.3.7 or fails to complete the mitigation and monitoring within the timeframes specified in the permit conditions or any extension thereof, such failure shall be deemed a violation of chapter 40E-4, F.A.C., and the permit issued thereunder. In addition to any other remedies for such violation as the District may have, the District, upon notice as provided in the mechanism or if none, upon reasonable notice, may draw upon the financial mechanism.

4.3.7.6 *Financial Responsibility Mechanisms*

Financial responsibility for the mitigation, monitoring and corrective action for the project may be established by any of the following methods, at the discretion of the applicant:

- (a) Performance bond;
- (b) Irrevocable letter of credit;
- (c) Trust fund agreement;

- (d) Deposit of cash or cash equivalent into an escrow account;
- (e) An audited annual financial statement submitted by a Certified Public Accountant representing that the applicant has a tangible net worth equal to or in excess of the cost of the mitigation plan. For purposes of this subparagraph, "tangible net worth" means total assets, not including intangibles such as goodwill and right to patents or royalties, minus total liabilities, computed in accordance with generally accepted accounting principles.
- (f) A demonstration that the applicant meets the financial test and corporate guarantee requirements set forth in 40 C.F.R. Section 264.143(f) incorporated herein by reference. Where the referenced test is used to provide evidence of financial resources necessary to conduct mitigation activities the term "closure and post-closure cost estimates" as set forth therein, shall be construed to mean "mitigation cost estimates."
- (g) guarantee bond;
- (h) insurance certificate;
- (i) A demonstration that the applicant meets the self-bonding provisions set forth at 30 C.F.R. Section 800.23 incorporated herein by reference. Where the referenced provisions are used to provide evidence of financial responsibility to conduct mitigation activities, the term "surface coal mining and reclamation operations," as set forth therein, shall be construed to mean "mitigation activities."

4.3.7.7 Cost Estimates

For the purposes of determining the amount of financial responsibility that is required by this subsection, the applicant shall submit a detailed written estimate, in current dollars, of the total cost of conducting the mitigation, including any maintenance and monitoring activities and the applicant shall comply with the following:

- (a) The cost estimate for conducting the mitigation and monitoring shall include all associated costs for each phase thereof, including earthmoving, planting, structure installation, maintaining and operating any structures, controlling nuisance or exotic species, fire management, consultant fees, monitoring activities and reports.
- (b) The applicant shall submit the estimates, together with verifiable documentation, to the District along with the draft of the financial responsibility mechanism.
- (c) The costs shall be estimated based on a third party performing the work and supplying materials at the fair market value of the services and materials. The source of any cost estimates shall be indicated.

4.3.7.7.1 Partial Releases

The permittee may request the District to release portions of the financial responsibility mechanism as phases of the mitigation plan, such as earth moving or other construction or activities for which cost estimates were submitted in accordance with subsection 4.3.7.7 of the Basis of Review for Environmental Resource Permit Applications Within the South Florida Water Management District - August 1995 are successfully completed. The request shall be in writing and include documentation that the phase or phases have been completed and have been paid for or will be paid for upon release of the applicable portion of the financial responsibility mechanism. The District shall authorize the release of the portion requested upon verification that the construction or activities have been completed in accordance with the mitigation plans.

4.3.7.7.2 Final Release

Within thirty (30) days of the District determining that the mitigation is successful in accordance with subsection 4.3.6, the District shall so notify the permittee and shall authorize the return and release of all funds held or give written authorization to the appropriate third party for the cancellation or termination of the financial responsibility mechanism.

4.3.7.8 Financial Responsibility Conditions

For applicants subject to the financial responsibility of subsections 4.3.7 - 4.3.7.9, the District will include the following conditions on the permit.

- (a) A permittee must notify the District by certified mail of the commencement of a voluntary or involuntary proceeding under Title XI (Bankruptcy), U.S. Code naming the permittee as debtor within 10 business days after the commencement of the proceeding.
- (b) A permittee who fulfills the requirements of subsections 4.3.7 - 4.3.7.9 by obtaining a letter of credit, performance bond or other form of surety providing the same level of financial responsibility will be deemed to be without the required financial assurance in the event of bankruptcy, insolvency or suspension or revocation of the license or charter of the issuing institution. The permittee must reestablish in accordance with subsections 4.3.7 - 4.3.7.9 a financial responsibility mechanism within 60 days after such event.
- (c) When transferring a permit in accordance with section 40E-4.351, F.A.C., the new owner or person with legal control shall submit documentation to satisfy the financial responsibility requirements of subsections 4.3.7 - 4.3.7.9. The prior owner or person with legal control of the project shall continue the financial responsibility mechanism until the District has approved the permit transfer and substitute financial responsibility mechanism.

4.3.7.9 Financial Responsibility Mechanisms For Multiple Projects

A applicant may use a mechanism specified in subsection 4.3.7.6 above to meet the financial responsibility requirement for multiple projects. The financial responsibility mechanism must include a list of projects and the amount of funds assured for each project. The mechanism must be no less than the sum of the funds that would be necessary in accordance with subsection 4.3.7.2 above, as if separate mechanisms had been established for each project. As additional permits are issued which require mitigation, the amount of the financial responsibility mechanism may be increased in accordance with subsection 4.3.7.2, above and the project added to the list.

4.3.8 Real Property Conveyances.

- (a) All conservation easements shall be granted in perpetuity without encumbrances, unless such encumbrances do not have the potential to adversely affect the ecological viability of the mitigation. All liens against the conservation easement site shall release, be subordinated to, or joined with the conservation easement. All conservation easements shall be consistent with Section 704.06, F.S.; and shall contain restrictions that ensure the ecological viability of the site.
- (b) All real property conveyances shall be in fee simple and by statutory warranty deed, special warranty deed, or other deed, without encumbrances that adversely affect the integrity of the preservation objectives. The District shall also accept a quit claim deed if necessary to aid in clearing minor title defects or otherwise resolving boundary questions.

4.3.9 Mitigation Reduction Through a Melaleuca Eradication Program.

- (a) The intent of this section is to encourage landowners to maintain their land free of exotic vegetative species by providing a regulatory incentive in the form of future reductions in required mitigation. A landowner whose property contains melaleuca (*Melaleuca quinquenervia*), may elect to participate in a melaleuca eradication program. Landowners who implement a successful melaleuca eradication program which has been approved by the District may earn a reduction in mitigation requirements up to a maximum of 50% to be used towards mitigating future wetland impacts resulting from regulated activities undertaken on the subject property. The development and implementation of a melaleuca eradication program pursuant to this section shall not require an Environmental Resource Permit or a permit fee.
- (b) In order to be eligible for the future mitigation reduction, a landowner must submit a plan to District staff for review and approval and successfully implement the melaleuca eradication program. The submitted plan must detail the extent of melaleuca coverage over the entire property, including both wetlands and uplands, for which the melaleuca eradication program is to be implemented. The plan shall differentiate between wetland communities and upland communities, and shall

specify melaleuca coverages and acreages for each community type which the landowner proposes to include in the melaleuca eradication program. Each vegetative community type shall be mapped using the Florida Land Use, Cover and Forms Classification System (FLUCCS) to a minimum of Level III.

- (c) The plan must include a map showing all of the landowner's property holdings which are contiguous to the property which is the subject of the melaleuca eradication program. Landowners may submit proposals to subdivide large land holdings based on phase boundaries or operational units.
- (d) The melaleuca eradication plan must specify the following:
 - 1. the methodology to be used initially to eliminate or eradicate the existing melaleuca population;
 - 2. the subsequent management and maintenance procedures that will be undertaken on the property to ensure that:
 - a. the area has no living mature or sapling melaleuca trees; and
 - b. less than 1% of the total land area included in the melaleuca removal program contains live melaleuca seedlings.
- (e) The melaleuca eradication program must include a monitoring plan to document the success of the melaleuca eradication efforts over time. In order to be approved, the melaleuca eradication plan must provide reasonable assurances that:
 - 1. the plan is designed to achieve a significant overall improvement of ecological conditions;
 - 2. the plan is capable of being successfully implemented based on reasonable scientific judgement given due consideration of such factors as adjacent land uses and proximate seed sources;
 - 3. the initial eradication methodology and subsequent management and maintenance procedures will not adversely impact wetlands, native upland habitat or listed species;
 - 4. the plan will not eliminate melaleuca in some areas of the property while facilitating melaleuca encroachment or proliferation into other areas of the property;
 - 5. the plan will not allow invasion by other exotic vegetation (category I and II species of trees, shrubs and vines as specified in the Florida Exotic Pest Plant Council's *List of Florida's Most Invasive Species*) in the areas where melaleuca has been removed.

4.3.9.1 Wetland boundaries shall be determined pursuant to Chapter 62-340, F.A.C. (Delineation of the Landward Extent of Wetlands and Surface Waters). For the purposes of this section wetland boundaries may be established by photo-interpretation and ground truthing. If a landowner wishes to obtain greater certainty regarding the establishment of wetland boundaries as a part of a melaleuca eradication program, the District shall conduct a formal wetland determination pursuant to section 40E-4.042, F.A.C., over the area included in the melaleuca eradication program. The fee for such a determination pursuant to this section shall be waived and the formal wetland determination shall remain in effect for the life of the melaleuca eradication program.

4.3.9.2

- (a) The melaleuca eradication program and reduction in mitigation requirements do not obviate the requirements of section 4.2.1, which specifies the criteria for the elimination or reduction of wetland impacts. Therefore, the determination of mitigation reduction for future wetland impacts does not guarantee that a specific wetland impact will be permissible in the future. Additionally, future wetland impacts do not need to be identified until such time as the landowner proposes to undertake regulated activities requiring a permit pursuant to Part IV of Chapter 373, F.S.
- (b) A landowner must implement the approved melaleuca eradication program for a minimum of three years before a reduction in mitigation requirements may be granted. (See Figure 4.3-1, "Incentive Graph".) If the landowner is in compliance with the melaleuca eradication program, the mitigation reduction will be based on the length of time the melaleuca eradication program is successfully implemented and the initial extent of melaleuca coverage.
- (c) Coverage of melaleuca shall be defined as the absolute percentage of the area in question that lies under the crown of a melaleuca tree with a one inch or greater trunk diameter at breast height. The crown of each melaleuca tree shall be considered a solid shape without regard for holes or openings among the leaves and branches. A stratified sampling approach which divides the property into units with uniform melaleuca coverages may be an efficient sampling method for some properties. Any valid vegetative sampling methodology shall be acceptable for estimating melaleuca coverage including visual observation, use of random sample points, a grid of points, or line or belt transects. (See Bonham, C.D. 1989, *Measurements for Terrestrial Vegetation* for guidance in estimating coverage.)

For properties with a complex mosaic of melaleuca coverages within different community types, a weighted average will be used to determine the initial coverage of melaleuca on the property. The property must be mapped in units which differentiate percentages of melaleuca coverage and the acreage of the unit. For each unit, the acreage and percent melaleuca coverage will be multiplied together to determine an acre-coverage value. Acre-coverage values for all units will be added together and this total will be divided by the total acreage of all the units. This result will be multiplied by 100% to obtain the initial overall percent

coverage for the site. The formula for determining the weighted average for properties with a mosaic of melaleuca coverages shall be as follows:

$$\begin{aligned} &\text{unit acreage} \times \text{percent melaleuca coverage} = \text{acre-coverage value} \\ &(\sum \text{acre-coverage values for all units} \div \text{total acreage of all units}) \times 100\% = \\ &\text{initial percent melaleuca coverage for site} \end{aligned}$$

The initial percent of melaleuca coverage for the site shall be used in conjunction with the time the landowner has invested in implementing the incentive program, in order to calculate the percent of reduction in future mitigation requirements. The percent of reduction in future mitigation shall be determined according to Figure 4.3-1, "Incentive Graph". The mitigation reduction shall be applied to the amount of mitigation required for the wetland impact based on the initial coverage of melaleuca in that wetland prior to initiating melaleuca eradication activities.

The District will accept alternative methods of calculating the initial percent melaleuca coverage for the site when:

1. it can be demonstrated that there are extenuating factors to consider such as the spatial distribution of the melaleuca throughout the property; and
2. the alternative method accurately quantifies the extent of melaleuca coverage on the property through the use of any valid vegetative sampling methodology.

4.3.9.3

- (a) The District will enter into a stewardship agreement with each landowner who elects to implement an approved melaleuca eradication plan. The stewardship agreement will include the approved melaleuca eradication plan and will document the original extent of melaleuca on the subject property, the community types mapped by FLUCCS codes, the date of initiation of the melaleuca eradication program, the anticipated length of time of program implementation, the methodology of melaleuca eradication, monitoring requirements, and maintenance frequency and methodology. The stewardship agreement will also document the percent reduction in future mitigation requirements based on the initial percent of melaleuca coverage for the site and the anticipated length of time in the program.
- (b) District staff will prepare a recommendation for approval or denial of each melaleuca eradication plan and stewardship agreement and present that recommendation to the Governing Board of the District based upon the applicant's compliance with the criteria outlined in subsection 4.3.9(e). The Governing Board's approval or denial will become final agency action. The stewardship agreement shall be legally binding on both parties but may be modified upon written agreement of both the landowner and the District. If a landowner sells a property or portion thereof, which is the subject of an approved melaleuca eradication program, the landowner shall apply to the District to modify the stewardship agreement accordingly.

- (c) Melaleuca eradication plans shall be submitted to the appropriate District Service Center serving the area in which the activity is proposed as designated in Rule 40E-1.6025, F.A.C., and shall be accompanied by the information required in subsection 4.3.9.
1. District staff shall notify the applicant in writing via regular mail of its proposed recommendation that the Governing Board approve or deny the eradication plan. This notification shall occur within sixty (60) days following receipt of a completed eradication plan. If staff's recommendation is for approval, the District shall also simultaneously forward a draft stewardship agreement to the applicant for review, approval and execution.
 2. District staff shall schedule consideration of the proposal by the Governing Board at its next available, regularly scheduled meeting as follows:
 - a. Immediately upon receipt of a stewardship agreement executed by the applicant, or
 - b. immediately after notifying the applicant that staff's recommendation is for denial.
 3. The applicant shall be notified of the date and time of this meeting - or any subsequent meeting if final agency action is not taken - via regular mail to be received by the applicant at least 7 days in advance of the Governing Board meeting.

4.3.9.4

- (a) The incentives of the melaleuca eradication program can not be used if other local, county, regional, state or federal requirements to remove the melaleuca have previously been imposed on the property for any wetland mitigation purposes.
- (b) The landowner must remain in compliance with the terms of the stewardship agreement in order to receive the benefit of the future mitigation reduction. If the landowner does not remain in compliance with the terms of the stewardship agreement, the District will in no way be compelled to honor the reduction in mitigation requirements for the prior melaleuca eradication work on the property.

- 4.3.9.5 A landowner who wishes to obtain greater certainty regarding potential development of a property may combine an application for conceptual approval with a melaleuca eradication program. The District will review the conceptual application in accordance with section 40E-4.305, F.A.C. If a landowner wishes to combine a conceptual approval with a melaleuca eradication program, the fee for the conceptual approval will be waived.

Incentive Graph

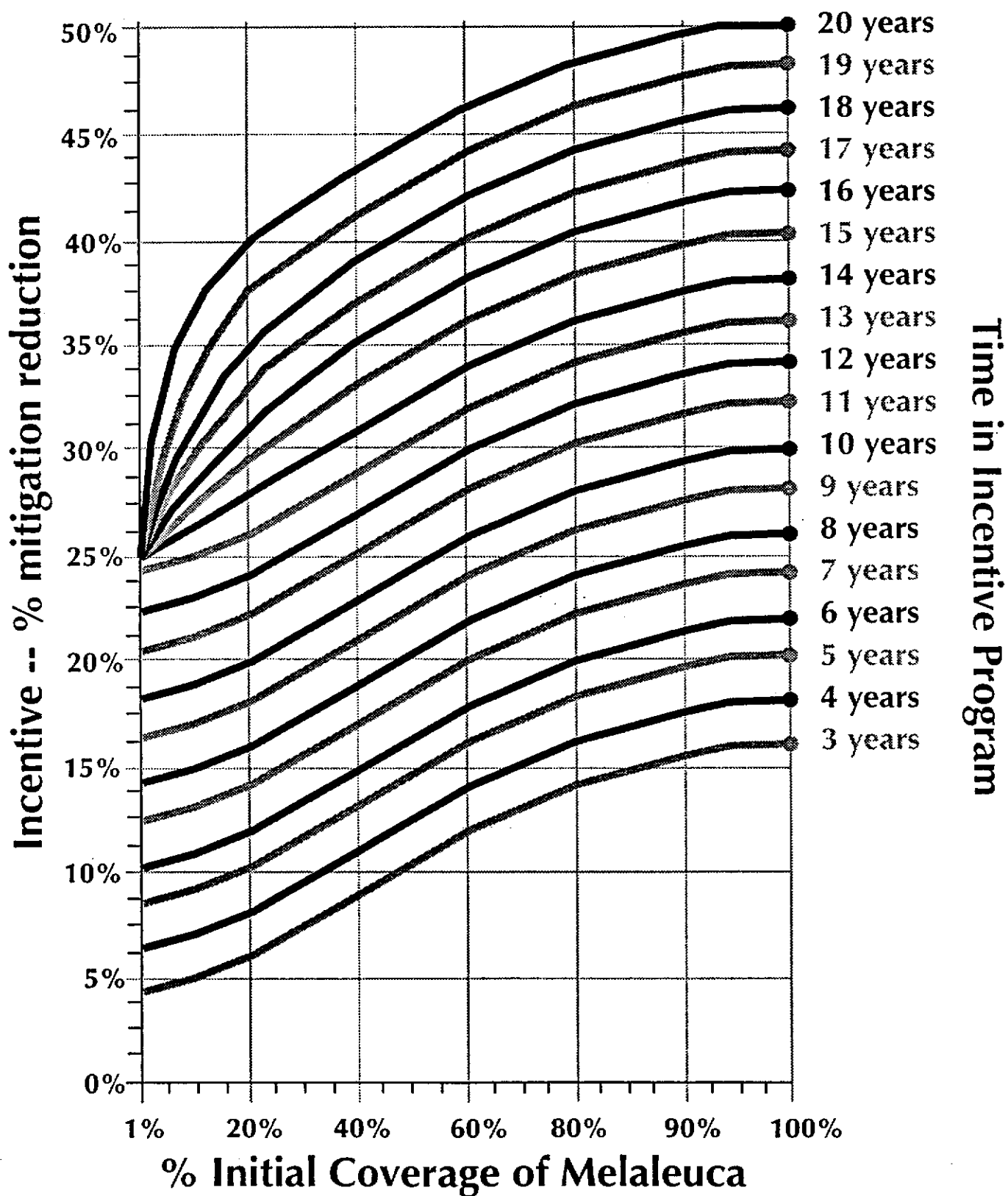


Fig. 4.3-1

4.4 Mitigation Banking -

4.4.1 Intent

- 4.4.1.1** The Environmental Reorganization Act of 1993 directed the District to adopt rules governing the creation and use of mitigation banks to offset adverse impacts caused by activities regulated under Part IV of Chapter 373, F.S. This section, in addition to other rules promulgated under Part IV of Chapter 373, F.S., is intended to meet this requirement.
- 4.4.1.2** The District recognizes that, in certain instances, adverse impacts of activities regulated under Part IV of Chapter 373, F.S., can be offset through participation in a Mitigation Bank. This rule provides criteria for this mitigation alternative to complement existing mitigation criteria and requirements. This section does not supersede any other criteria and requirements in rules promulgated under Part IV of Chapter 373, F.S.
- 4.4.1.3** The District intends that Mitigation Banks be used to minimize mitigation uncertainty associated with traditional mitigation practices, provide greater assurance of mitigation success, and optimize opportunities to restore any degraded habitats which may be incorporated into the bank. It is anticipated that the consolidation of multiple mitigation projects into larger contiguous areas will provide greater assurance that the mitigation will yield long-term, sustainable, regional ecological benefits. Mitigation Banks should emphasize restoration and enhancement of degraded ecosystems and the preservation of uplands and wetlands as intact ecosystems rather than alteration of landscapes to create wetlands. The establishment and use of mitigation banks in or adjacent to areas of national, state, or regional ecological significance is encouraged, provided the area in which the mitigation bank is proposed to be located is determined appropriate for mitigation banking and the bank meets all applicable permit criteria.
- 4.4.1.4** Nothing in this section shall affect the mitigation requirements set forth in any mitigation bank agreement or any permit issued pursuant to Chapter 84-79, Laws of Florida, or Part IV of Chapter 373, F.S., prior to the effective date of this section. If a permittee wishes to substantially modify a mitigation bank previously established by agreement or permit, the permittee must comply with this section. This section does not prohibit an applicant from proposing project-specific pre-construction mitigation, or off-site mitigation, without establishing a Mitigation Bank pursuant to this section.

4.4.2 Use of a Mitigation Bank

- 4.4.2.1** Use of a Mitigation Bank is appropriate, desirable, and a permissible mitigation option when the Mitigation Bank will offset the adverse impacts of the project; and
- (a) on-site mitigation opportunities are not expected to have comparable long-term viability due to such factors as unsuitable hydrologic conditions or ecologically incompatible existing adjacent land uses or future land uses identified in a local comprehensive plan adopted according to Chapter 163, F.S.; or

- (b) use of the Mitigation Bank would provide greater improvement in ecological value than on-site mitigation.

4.4.2.2 In some cases, a combination of on-site mitigation and participation in a Mitigation Bank will be appropriate to offset adverse impacts of a project.

4.4.3 *Criteria for Establishing a Mitigation Bank*

The following criteria shall be met to establish a Mitigation Bank:

4.4.3.1 The banker shall provide reasonable assurance that the proposed Mitigation Bank will:

- (a) improve ecological conditions of the regional watershed;
- (b) provide viable and sustainable ecological and hydrological functions for the proposed mitigation service area;
- (c) be effectively managed in the long term;
- (d) not destroy areas with high ecological value;
- (e) achieve mitigation success; and
- (f) be adjacent to lands which will not adversely affect the long-term viability of the Mitigation Bank due to unsuitable land uses or conditions.

4.4.3.1.2 The banker shall also provide reasonable assurance that any surface water management system constructed within the mitigation bank area will meet the conditions of issuance of Chapters 40E-4, 40E-40, 40E-41 or 40E-400, F.A.C. as applicable.

4.4.3.2 A Mitigation Bank may be implemented in phases if each phase independently meets the requirements of subsections 4.4.3.1 and 4.4.3.1.2 above.

4.4.3.3 The banker shall:

- (a) have sufficient legal or equitable interest in the property to meet the requirements of section 4.4.9; and
- (b) meet the financial responsibility requirements of section 4.4.10.

4.4.4 *Permit Applications for an Individual or Conceptual Approval Environmental Resource Permits for a Mitigation Bank*

Any person or entity proposing to establish a Mitigation Bank must apply for an Environmental Resource Permit. An application for an Individual or Conceptual Approval Environmental Resource Permit for a mitigation bank shall constitute an application for any related activity which

would require a permit authorized under Chapters 40E-4, 40E-40, 40E-41 and 40E-400, F.A.C. Therefore, a separate application for a permit to construct a surface water management system proposed as part of the mitigation bank is not required. Environmental Resource Permit applications to establish or conceptually approve a Mitigation Bank shall be processed according to Chapter 120, F.S. To provide the District with reasonable assurances that the proposed Mitigation Bank will meet the criteria in this section, each permit application submitted to the District shall include the information needed to review any permit required under Chapters 40E-4, 40E-40, 40E-41 and 40E-400, F.A.C. and the information specified below as appropriate for the project:

4.4.4.1 A description of the location of the proposed Mitigation Bank which shall include:

- (a) a map at regional scale showing the project area in relation to the regional watershed and proposed mitigation service area;
- (b) a vicinity map showing the project area in relation to adjacent lands and offsite areas of ecologic or hydrologic significance which could affect the long term viability or ecological value of the bank;
- (c) an aerial photograph identifying boundaries of the project area;
- (d) a highway map showing points of access to the Mitigation Bank for site inspection; and
- (e) a legal description of the proposed Mitigation Bank.

4.4.4.2 A description of the ecological significance of the proposed Mitigation Bank to the regional watershed in which it is located.

4.4.4.3 A description and assessment of current site conditions which shall include:

- (a) a soils map of the project area;
- (b) a topographic map of the project area and adjacent hydrologic contributing and receiving areas;
- (c) a hydrologic features map of the project area and adjacent hydrologic contributing and receiving areas;
- (d) current hydrologic conditions in the project area;
- (e) a vegetation map of the project area;
- (f) ecological benefits currently provided to the regional watershed by the project area;
- (g) adjacent lands, including existing land uses and conditions, projected land uses according to comprehensive plans adopted pursuant to Chapter 163,

F.S., by local governments having jurisdiction, and any special designations or classifications associated with adjacent lands or waters; and

- (h) a disclosure statement of any material fact which may effect the contemplated use of the property.

4.4.4.4 A mitigation plan describing the actions proposed to establish, construct, operate, manage and maintain the Mitigation Bank which shall include:

- (a) construction-level drawings detailing proposed topographic alterations and all structural components associated with proposed activities;
- (b) proposed construction activities, including a detailed schedule for implementation;
- (c) the proposed vegetation planting scheme and detailed schedule for implementation;
- (d) measures to be implemented during and after construction to avoid adverse impacts related to proposed activities;
- (e) a detailed long term management plan comprising all aspects of operation and maintenance, including water management practices, vegetation establishment, exotic and nuisance species control, fire management, and control of access; and
- (f) a proposed monitoring plan to demonstrate mitigation success.

4.4.4.5 An assessment of improvement or changes in ecological value anticipated as a result of proposed mitigation actions which shall include:

- (a) a description of anticipated site conditions in the Mitigation Bank after the mitigation plan is successfully implemented;
- (b) a comparison of current fish and wildlife habitat to expected habitat after the mitigation plan is successfully implemented; and
- (c) a description of the expected ecological benefits to the regional watershed.

4.4.4.6 Evidence of sufficient legal or equitable interest in the property which is to become the Mitigation Bank to meet the requirements of section 4.4.9.

4.4.4.7 Draft documentation of financial responsibility meeting the requirements of section 4.4.10.

4.4.4.8 Any additional information which may be necessary to evaluate whether the proposed Mitigation Bank meets the criteria of this section.

- 4.4.4.9** A person or entity who wishes to obtain an estimation of the legal and financial requirements necessary for a mitigation bank, information necessary for evaluation of an application for an individual permit for a mitigation bank, and potential credits to be awarded pursuant to a mitigation bank individual permit may apply for a mitigation bank conceptual approval. An application for a mitigation bank conceptual approval must contain the information listed in 4.4.4.1-8 above.

4.4.5 *Establishment of Mitigation Credits*

- 4.4.5.1** Based upon the information submitted by the applicant, and an assessment of the proposed Mitigation Bank pursuant to the criteria in this section, the District will assign a number of Mitigation Credits to the proposed Mitigation Bank, or phases thereof.
- 4.4.5.2** A Mitigation Credit is a unit of measure which represents the increase in ecological value resulting from restoration, enhancement, preservation, or creation activities. For purposes of establishing a standard unit of measure, one Mitigation Credit is equivalent to the ecological value gained by the successful creation of one acre of wetland. Mitigation Credits assigned for enhancement, restoration or preservation of wetlands or uplands will be based on the extent of improvement in ecological value resulting from these activities relative to that obtained by successfully creating one acre of wetland. In determining the degree of improvement in ecological value, the following factors will be considered:
- (a) The extent to which target hydrologic regimes can be achieved and maintained.
 - (b) The extent to which management activities promote natural ecological conditions, including natural fire patterns.
 - (c) The proximity to areas of national, state, or regional ecological significance, such as national or state parks, Outstanding National Resource Waters, Outstanding Florida Waters, and other regionally significant ecological resources or habitats, such as lands acquired or to be acquired through governmental or non-profit land acquisition programs for environmental conservation, and the establishment of corridors to those resources or habitats.
 - (d) The quality and quantity of wetland or upland restoration, enhancement, preservation, or creation.
 - (e) The ecological and hydrological relationship between wetlands and uplands in the Mitigation Bank.
 - (f) The extent to which the Mitigation Bank provides habitat for fish and wildlife, especially habitat for species listed as threatened, endangered or of special concern, or provides habitats which are unique for that mitigation service area.

- (g) The extent to which the lands that are to be preserved are already protected by existing state, local or federal regulations or land use restrictions.
- (h) The extent that lands to be preserved would be adversely affected if they were not preserved.
- (i) Any special designation or classification of the affected waters and lands.

4.4.5.3 No credit shall be available for freshwater wetland creation until the success of the created wetlands is demonstrated.

4.4.5.4 Some Mitigation Credits may be withdrawn prior to meeting all of the performance criteria specified in the individual permit. The number of credits and schedule for release shall be determined based upon the performance criteria for the Mitigation Bank, and the success criteria for each mitigation activity. A Mitigation Bank will be credited with its maximum number of Mitigation Credits only after meeting the mitigation success criteria specified in the permit. However, no credits shall be released prior to meeting the requirements of Section 4.4.9.

4.4.5.5 Mitigation Credits available for withdrawal may be transferred, sold or used subject to the provisions of this section.

4.4.5.6 If at any time the banker is not in material compliance with the terms of the individual permit, no Mitigation Credits may be withdrawn. Mitigation Credits shall again be available for withdrawal if the banker comes back into compliance.

4.4.5.7 The individual permit shall contain a ledger listing the number and type of Mitigation Credits in the Mitigation Bank. The ledger will provide the maximum number and type of Mitigation Credits which would be available for withdrawal when the Mitigation Bank meets all of the performance criteria in the permit.

4.4.5.8 Mitigation Credits may be sold whole or in part at the banker's discretion. Mitigation Credits may be sold or resold until they are used to offset adverse impacts.

4.4.5.9 The District shall maintain a ledger of the Mitigation Credits available in each Mitigation Bank. Mitigation Credits shall be withdrawn as a non-substantial modification of the individual permit. To withdraw Mitigation Credits, the permit applicant must document that Mitigation Credits have been reserved, sold or transferred to the permit applicant, and that the Mitigation Credits have been withdrawn from the Mitigation Bank. If the agency permitting the impact determines that use of the Mitigation Credits proposed by the applicant is appropriate to offset the adverse impacts, it shall notify the District. Upon receipt of this notice, the District shall determine if a sufficient number and type of Mitigation Credits are available, withdraw the Mitigation Credits, and notify the agency permitting the impact and the banker in writing of the withdrawal of the Mitigation Credits and the remaining balance of Mitigation Credits.

- 4.4.5.10** When the Department is the banker, the Department shall maintain its own ledger. The Department shall annually submit a report of the Mitigation Credits sold, transferred, or used from its Mitigation Bank to the District.

4.4.6 Contribution of Lands

A permit applicant may contribute land to a Mitigation Bank if:

- (a) the adverse impacts to be offset by the land donation are within the mitigation service area of the Mitigation Bank, except as provided in Section 4.4.8.4;
- (b) the land will offset adverse impacts of the proposed project;
- (c) the land is adjacent to or will become a District approved Mitigation Bank;
- (d) the land will improve or enhance the ecological value of a District approved Mitigation Bank;
- (e) the land will be encumbered pursuant to the requirements of section 4.4.9; and
- (f) the grantee of the conservation easement or fee simple interest agrees to accept such conveyance.

4.4.7 Contribution of Funds

Funds may be contributed to a Mitigation Bank by purchasing Mitigation Credits from the banker.

4.4.8 Mitigation Service Area

- 4.4.8.1** A Mitigation Service Area will be established for each Mitigation Bank in the individual permit. Except as provided herein, Mitigation Credits may only be withdrawn to offset adverse impacts in the Mitigation Service Area. The extent of the Mitigation Service Area will depend upon whether adverse impacts within the Mitigation Service Area can be adequately offset by the Mitigation Bank.
- 4.4.8.2** A Mitigation Service Area may be larger than the regional watershed if adverse impacts to wetlands outside the regional watershed could be adequately offset by the Mitigation Bank because of local ecological or hydrological conditions. A Mitigation Service Area may be smaller than a regional watershed, such as in an aquatic preserve, Outstanding Florida Water, or Area of Critical State Concern, if adverse impacts throughout the regional watershed could not be offset by the Mitigation Bank because of local ecological or hydrological conditions.
- 4.4.8.3** Mitigation Service Areas may overlap and multiple Mitigation Service Areas may be approved for a regional watershed.
- 4.4.8.4** In addition to projects located wholly within the Mitigation Service Area of a Mitigation Bank, the following projects are eligible to use a Mitigation Bank if the requirements

in section 4.4.2 are met:

- (a) Projects with adverse impacts partially located within the Mitigation Service Area.
- (b) Linear projects, such as roadways, transmission lines, distribution lines, pipelines, or railways.
- (c) Projects with total adverse impacts of less than one-half acre in size.

4.4.8.5 When Mitigation Credits are applied to offset adverse impacts within the regional watershed, the mitigation credit requirement shall be the same as that specified for mitigation on the project site.

4.4.8.6 When Mitigation Credits are applied to offset adverse impacts outside the regional watershed, the mitigation credit requirement may be higher than that specified for mitigation on the project site, if necessary to adequately offset the adverse impacts of the project.

4.4.9 Land Use Restrictions on Mitigation Banks

4.4.9.1 Before Mitigation Credits may be used from a Mitigation Bank or any phase of a Mitigation Bank, the banker shall either (1) cause a fee interest to be conveyed to the District, or (2) cause a conservation easement to be conveyed to both the Department of Environmental Protection and the District. The grantor may convey a conservation easement to additional grantees provided that such conveyance is consistent with the preservation requirements of the permit. Mitigation Banks on Federally owned land shall be encumbered in perpetuity by conservation easements or other mechanisms ensuring preservation in accordance with the individual permit.

4.4.9.2 All conservation easements shall be granted in perpetuity without encumbrances, unless such encumbrances do not adversely affect the ecological viability of the Mitigation Bank. All conservation easements shall be of a form and content sufficient to ensure preservation of the Mitigation Bank according to the permit, and shall, at a minimum, meet the requirements and restrictions of Section 704.06, F.S., except as provided in the individual permit, and meet the requirements of subsection 4.4.9.9.

4.4.9.3 All real property conveyances shall be in fee simple and by statutory warranty deed, special warranty deed, or other deed, without encumbrances that adversely affect the District's title to the Mitigation Bank property or preservation of the Mitigation Bank according to the permit. The District shall accept a quit claim deed if necessary to aid in clearing minor title defects or otherwise resolve a boundary question in the Mitigation Bank.

4.4.9.4 The grantor of the property or conservation easement shall provide the following unless the District determines such items are not necessary to ensure preservation of the Mitigation Bank according to the permit:

- (a) A survey of the property or the area within the conservation easement. The survey must be certified by a land surveyor registered in the State of Florida as meeting the requirements of the District, and the minimum technical standards set forth by the Florida Board of Professional Land Surveyors in Chapter 21 HH-6, F.A.C., pursuant to Section 472.027, F.S.
- (b) A certified appraisal of the market value of the property or interest to be conveyed to determine the appropriate amount of title insurance.
- (c) Assurance of the marketability of the interest in real property being acquired in the form of a marketable title commitment and owner's title policy (ALTA Form B) in an amount at least equal to the fair market value, as established in subsection 4.4.9.4(b), of the real property. The coverage, form and exceptions of the title insurance policy shall ensure that the Mitigation Bank will be preserved according to the individual permit.
- (d) If a fee simple interest is being conveyed, a Phase I environmental audit identifying any environmental problems which may affect the liability of the District and any additional audits as are necessary to disclose the presence of any substance or condition that could subject the District to liability.

- 4.4.9.5** The District shall require additional documentation or actions from the grantor of the conservation easement or fee interest if such additional documentation or actions are necessary to adequately protect the District's interest in, or the integrity of, the Mitigation Bank.
- 4.4.9.6** The grantor shall pay the documentary revenue stamp tax and all other taxes or costs associated with the conveyance, including the cost of recording the deed or easement and any other recordable instruments required by the District, unless prohibited or exempt by law, as a condition of the receipt of the conveyance.
- 4.4.9.7** All real estate taxes and assessments which are or which may become a lien against the property shall be satisfied of record by the grantor before or at closing. If required by Section 196.295, F.S., the grantor shall place funds in escrow with the county tax collector.
- 4.4.9.8** The grantor shall remove all abandoned personal property and solid waste from the property that reduces the proposed ecological value of the property, will adversely affect the construction, implementation or management of the bank, or poses a liability risk to the District, as a condition of receipt of the conveyance.
- 4.4.9.9** The grantor shall provide in the conservation easement that the banker and the District shall have access to the property to perform all acts necessary to ensure compliance with the individual permit and any permits issued under this Part.
- 4.4.9.10** The banker shall record the conservation easement or property deed within 30 days of issuance of the individual permit, or as otherwise required in the individual permit. The banker shall submit to the District a certified copy of the recorded conservation

easement or property deed within 30 days of recording.

4.4.10 Financial Responsibility

4.4.10.1 To provide reasonable assurances that the proposed Mitigation Bank will meet the requirements of this section and the associated permit conditions, non-governmental bankers shall provide proof of financial responsibility for: (1) the construction and implementation phase of the bank, and (2) the long term management of the bank, as required in this section. Governmental entities shall provide proof of financial responsibility pursuant to Section 4.4.10.8. The amount of financial responsibility provided in the mechanisms required in this section shall be based on the cost estimates determined pursuant to Section 4.4.10.6.

4.4.10.2 Financial Responsibility Documentation.

The applicant shall provide draft documentation of the required financial responsibility mechanisms described below with the permit application, and shall submit to the District the executed or finalized documentation within the time frames specified in the permit. The provisions of this section shall also apply for any modifications to the individual permit.

4.4.10.3 General Terms for Financial Responsibility Mechanisms

In addition to the specific provisions regarding financial responsibility mechanisms for construction and implementation in subsection 4.4.10.4 and long term management in subsection 4.4.10.5, the following terms shall be complied with:

- (a) The financial mechanisms shall name the District as sole beneficiary or shall be payable to the District. If the financial responsibility mechanism is of a type which is retained by the beneficiary according to industry standards, it shall be retained by the District.
- (b) The financial institution issuing or maintaining the financial responsibility mechanism must have the legal authority to conduct such operations and must be regulated and examined by a Federal agency or the State of Florida. If insurance is provided to the financial institution by a Federal agency, the amount of insurance shall not be less than the amount of financial responsibility required by this section. Surety or guarantee bonds must be issued by a surety company registered with the State of Florida.
- (c) No person shall withdraw or transfer any portion of the monies provided for financial responsibility without first obtaining prior written approval from the District, which shall be granted provided that such withdrawal or transfer does not reduce the amount of financial responsibility below the cost requirements in Sections 4.4.10.4(c) and 4.4.10.5(b), as applicable.
- (d) The financial responsibility mechanisms shall not expire or terminate prior to completion of the applicable permit conditions.

- (e) The financial responsibility mechanisms shall not be terminated or cancelled by the banker. Within 90 days of receipt of a notice of cancellation of a financial responsibility mechanism or other actual or constructive notice of cancellation, the banker shall provide an alternate financial responsibility mechanism which meets the requirements of this section.
- (f) If the Mitigation Bank has failed to comply with the terms and conditions of the permit, the District upon reasonable notice may draw upon the financial mechanism.

4.4.10.4 Financial Responsibility for Construction and Implementation

- (a) No financial responsibility shall be required where the construction and implementation of the Mitigation Bank, or a phase thereof, is completed and successful prior to the withdrawal of any credits.
- (b) Financial responsibility for the construction and implementation of each phase of the Mitigation Bank may be established by guarantee bonds, performance bonds, insurance certificates, irrevocable letters of credit, trust fund agreements, or securities. If bonds or an irrevocable letter of credit are used as the financial mechanism, a standby trust fund shall be established, in a form meeting standard industry practices, in which all payments under the bonds or letter of credit shall be directly deposited.
- (c) The amount of financial responsibility established shall equal the cost of construction and implementation of each phase of the Mitigation Bank which is being implemented, pursuant to Section 4.4.10.6. When a current phase has been completely constructed, implemented and is trending towards success according to the terms of the permit, the respective amount of financial responsibility shall be released.
- (d) The financial responsibility mechanism shall become effective at least 60 days prior to initiation of construction of the next phase of the Mitigation Bank, or as otherwise required by the individual permit prior to initiation of implementation and construction of the subject phase.

4.4.10.5 Financial Responsibility for the Long Term Management

- (a) A banker shall establish a trust fund agreement to provide financial responsibility for the long term management of the Mitigation Bank, or phase thereof. Trust fund agreements shall be submitted in a format which meets standard industry practices.
- (b) The amount of financial responsibility shall equal the cost of long term management, pursuant to Section 4.4.10.6, for all previously constructed phases and the current phase for which credits have been approved for withdrawal.

- (c) The trust fund agreement shall be effective and fully funded at least 60 days prior to the withdrawal of credits from the Mitigation Bank, or phase thereof, or as otherwise provided in the individual permit prior to the withdrawal of credits.

4.4.10.6 Cost Estimates

- (a) For the purposes of determining the amount of financial responsibility that is required in this section, the banker shall submit a detailed written estimate, in current dollars, of the total cost of construction and implementation and long term management of the Mitigation Bank.
- (b) The cost estimate for construction and implementation shall include all costs associated with completing construction and implementation of the Mitigation Bank, or phase thereof, including earthmoving, planting, structure installation, consultant fees, monitoring activities and reports.
- (c) The cost estimate for the long term management of the Mitigation Bank shall be based on the costs of maintaining and operating any structures, controlling nuisance or exotic species, fire management, consultant fees, monitoring activities and reports, and any other costs associated with long term management. The amount of financial responsibility shall equal the cost of long term management for all previously constructed phases and the current phase for which the withdrawal of credits is imminent.
- (d) The banker shall submit the estimates, together with verifiable documentation, to the District along with the proof of financial responsibility.
- (e) The costs shall be estimated based on a third party performing the work at the fair market value of services. The source of any cost estimates shall be indicated.

4.4.10.7 Cost Adjustments

- (a) The banker shall, every two years, adjust the amount of financial responsibility provided for construction, implementation, and long term management. Every two years the banker shall submit to the District a cost adjustment statement accompanied by supporting documentation. Construction, implementation, and long term management costs shall be listed separately. The District shall review the cost adjustment statement and supporting documentation to determine if it reflects all construction, implementation, and long term management costs. The District shall approve the cost adjustment statement if all such costs are reflected.
- (b) At each cost adjustment, the banker shall revise the construction and implementation cost estimate for inflation and changes in the costs to complete the current phase of the Mitigation Bank.

- (c) At each cost adjustment, the banker shall revise the long term management cost estimate for inflation and changes in the costs to carry out the long term management conditions of the permit.
- (d) Revised cost estimates shall be used as the basis for modifying the financial mechanism. If the value of the financial mechanism is less than the total amount of the current construction and implementation and long term management cost estimates, the banker shall, upon District approval of the cost adjustment statement, increase the value of the financial mechanism to reflect the new estimate within 60 days. If the value of the funding mechanism is greater than the total amount of the current cost estimate, the banker may reduce the value of the funding mechanism to reflect the new estimate upon receiving District approval of the cost adjustment statement.
- (e) The District shall require adjustment of the amount of financial responsibility provided for construction, implementation or long term management at times other than the cost adjustment period when the costs associated with compliance with the permit conditions exceed the current amount of financial responsibility and such financial assurances are deemed necessary to ensure compliance with the permit conditions.

4.4.10.8 Financial Responsibility for Governmental, Non-Department, Mitigation Banks

- (a) Governmental entities other than the Department shall demonstrate that they can meet the financial responsibility requirements for construction and implementation in Section 4.4.10.4 by any of the mechanisms in Section 4.4.10.4 above, or by other financial mechanisms which meet the requirements of this section.
- (b) Governmental entities other than the Department shall establish a trust fund for the long term management of the Mitigation Bank in accordance with Section 4.4.10.5 above. The trust fund agreement for long term management may be funded as Mitigation Credits are withdrawn, provided that the trust fund agreement is fully funded when all Mitigation Credits are withdrawn. Governmental entities shall comply with the cost adjustment provisions in Section 4.4.10.7.

4.4.11 Individual or Conceptual Approval Environmental Resource Permit for a Mitigation Bank

If the Mitigation Bank proposal meets the criteria in this section, the District shall issue either an individual permit or a Conceptual Approval to the banker.

- 4.4.11.1** The individual permit authorizes the implementation and operation of the Mitigation Bank and sets forth the rights and responsibilities of the banker for the implementation, management, maintenance and operation of the Mitigation Bank. The individual permit shall include the following:

- (a) A description of the Mitigation Service Area.
- (b) The maximum number of Mitigation Credits available for use when the Mitigation Bank, or phase thereof, is deemed successful, the type of Mitigation Credits awarded, and the number and schedule of Mitigation Credits available for use prior to success.
- (c) The success criteria by which the Mitigation Bank will be evaluated.
- (d) The financial responsibility mechanism(s) which must be employed by the banker including the procedure for drawing on the financial mechanisms by the District, and provisions for adjustment of the financial responsibility mechanism.
- (e) Requirements for the execution and recording of the conservation easement or conveyance of the fee interest as provided in section 4.4.9.
- (f) A ledger listing Mitigation Credits available in the Mitigation Bank.
- (g) A schedule for implementation of the Mitigation Bank, and any phases therein.
- (h) The long term management requirements for the Mitigation Bank.
- (i) The conditions required pursuant to Chapters 40E-4, 40E-40, 40E-41 or 40E-400, F.A.C., as applicable, for construction and operation of any surface water management system proposed within the Mitigation Bank.

4.4.11.2 An individual permit issued in accordance with 4.4.11 shall automatically expire five years from the date of issuance if the banker has not recorded a conservation easement or conveyed fee simple interest, as appropriate, over the real property within the Mitigation Bank, or phase thereof, in accordance with the individual permit, or, when no property interest is required to be recorded, the individual permit shall automatically expire if no construction has been commenced pursuant thereto. Except as provided above, an individual permit shall be perpetual unless revoked or modified.

4.4.11.3 A Mitigation Bank Conceptual Approval estimates the legal and financial requirements necessary for the Mitigation Bank, information necessary for evaluation of the application for an individual permit for the mitigation bank, and potential Mitigation Credits to be awarded pursuant to the individual permit. The Mitigation Bank Conceptual Approval does not authorize the use or withdrawal of Mitigation Credits, or any construction within the Mitigation Bank. The level of detail provided in the Mitigation Bank Conceptual Approval will depend on the level of detail submitted with the application. A Mitigation Bank Conceptual Approval shall be valid for a term of five years from the date of issuance.

4.4.12 Surrender, Transfer, or Modification of an Individual or Conceptual Approval Environmental Resource Permits for a Mitigation Bank

- 4.4.12.1** A banker may apply to surrender an individual permit, or permitted phase thereof, by submitting a written request to the District. The written request must identify which phase of the Mitigation Bank will be surrendered, indicate the extent of mitigation work performed in that phase, and describe the conservation property interest encumbering that phase. The District shall authorize release from an individual permit when no credits have been sold and relinquishment of the phase would not compromise the ecological value of the remaining portions of the Mitigation Bank.
- 4.4.12.2** If a property interest has been conveyed as provided in Section 4.4.9 for an individual permit which is surrendered as provided in Section 4.4.12.1 above, the District shall convey the property interest back to the grantor of that interest.
- 4.4.12.3** If a surface water management system has been constructed or altered within the Mitigation Bank, the banker shall obtain any permits required pursuant to Chapters 40E-4, 40E-40, 40E-41 and 40E-400, F. A. C., to abandon the surface water management system.
- 4.4.12.4** To transfer an individual permit, the banker shall meet the requirements of Rule 40E-1.6107, F.A.C., and the entity to which the permit will be transferred must provide reasonable assurances that it can meet the requirements of sections 4.4.9 and 4.4.10.
- 4.4.12.5** An Individual Environmental Resource Permit for a Mitigation Bank can be issued as a modification to a Mitigation Bank Conceptual Approval.

4.4.13 Department of Environmental Protection Mitigation Banks

The Department may construct, operate, manage, and maintain a Mitigation Bank pursuant to this section after obtaining an individual permit from the District.

- 4.4.13.1** The Department may apply to establish a Mitigation Bank by submitting a Mitigation Bank plan which meets the applicable permitting criteria of this section, in one of the following formats:
- (a) A Mitigation Bank plan identifying one or more parcels of lands to be acquired for mitigation site(s).
 - (b) A Mitigation Bank plan identifying one or more parcels of land in which the Department has a legal or equitable interest.
- 4.4.13.2** The Department shall maintain the land within the Regional Mitigation Bank pursuant to the terms of the individual permit. Any change in the land use shall require a modification of the Mitigation Bank Permit.
- 4.4.13.3** Notwithstanding any other provision of this Chapter, the Department may sell, transfer, or use Mitigation Credits prior to acquiring the proposed mitigation site as set forth in its individual

permit.

4.4.13.4 *Department Financial Responsibility*

A portion of the funds contributed to a Department Mitigation Bank from the sale of credits shall be dedicated for the construction and implementation of the Mitigation Bank, and a portion of the funds shall be dedicated for the long-term management of the bank as set forth in the individual permit. Funds derived from the sale of Mitigation Credits which are not necessary for the construction, implementation, and long-term management of a Department Regional Mitigation Bank shall be dedicated for the initiation of other Department Mitigation Banks, or expansion of other Department land acquisition or restoration projects which improve regional ecological conditions.

4.4.13.5 *Procedures for Establishment of Mitigation Banks*

Mitigation Banks established by the Department shall be permitted pursuant to the procedures encompassed in the Operating Agreement Concerning Regulation Under Part IV, Chapter 373, F.S. adopted by reference in Section 40E-4.091, F.A.C.

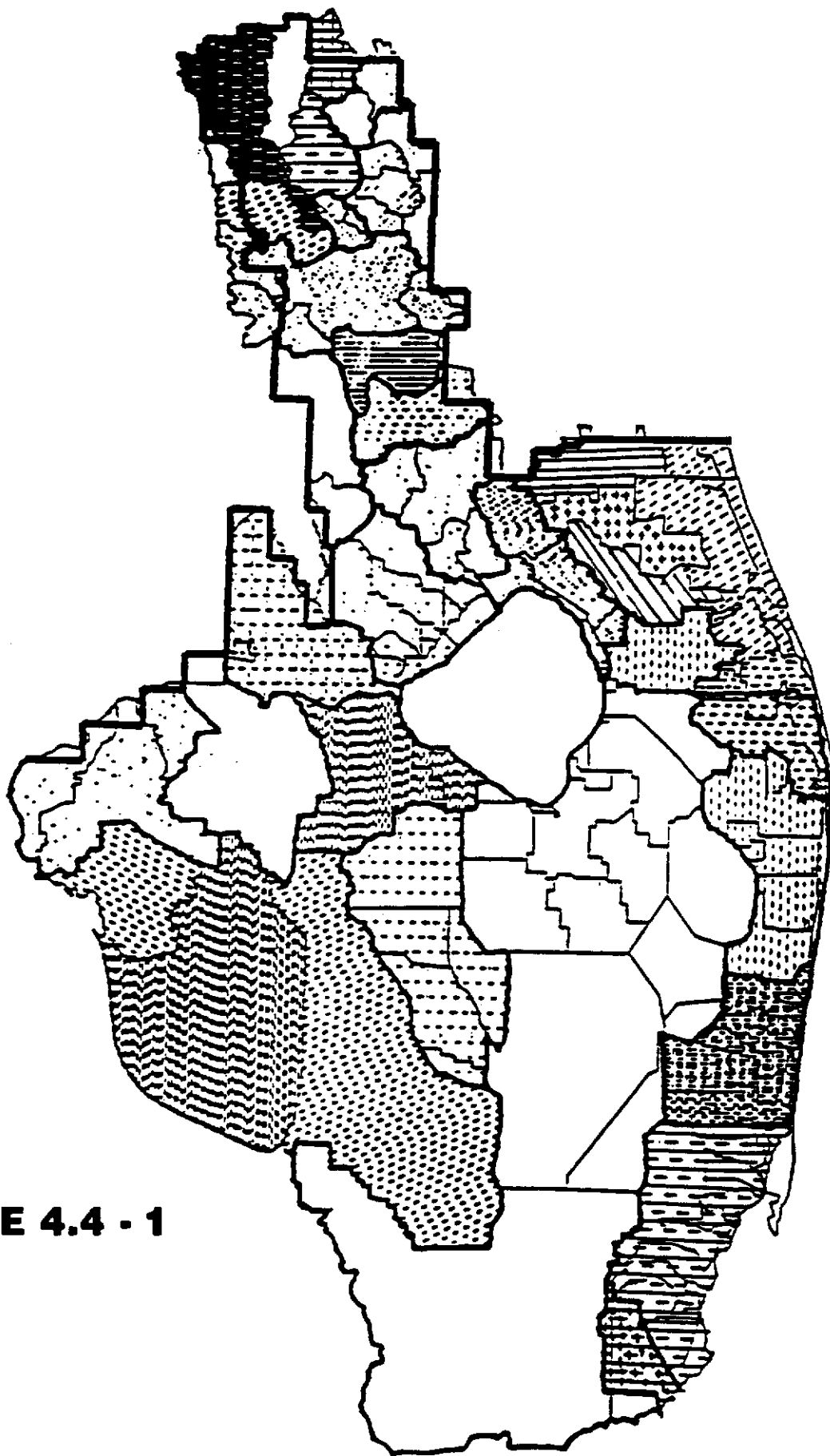


FIGURE 4.4 - 1

4.5 Formal Determination of the Landward Extent of Wetlands and other Surface Waters -

Pursuant to subsection 373.421(2), F.S., the Governing Board has established a procedure by which a real property owner, an entity that has the power of eminent domain, or any person who has a legal or equitable interest in real property may petition the District for a formal determination for that property. A formal wetland determination means the District will determine the locations on the property of the landward extent (boundaries) of the wetlands and other surface waters defined by Chapter 62-340, F.A.C., as ratified in Section 373.4211, F.S.

4.5.1 Procedure

To petition for a formal determination, the petitioner must submit to the District the following:

- (a) four copies of completed Form No. 0972, including copies of all items required by the form, and
- (b) the appropriate non-refundable formal determination fee pursuant to section 40E-1.607, F.A.C.

Within 30 days of receipt of a petition for a formal determination, the District shall notify the petitioner of any missing or insufficient information in the petition documentation submitted which may be necessary to complete review of the petition.

The District shall complete the determination and shall issue a notice of intended agency action within 60 days after the petition is deemed complete. The District shall publish the notice of intended agency action on the petition in a newspaper of general circulation in the county or counties where the property is located.

Sections 120.57 and 120.59, F.S., apply to formal determinations made pursuant to this section. Any person whose substantial interests will be affected by the District's proposed action on the petition may request an administrative hearing on the proposed action pursuant to section 40E-1.511, F.A.C. If no request for an administrative hearing is filed, the Executive Director will then take final action on the petition for the formal determination.

The Executive Director will only issue a formal determination if the petitioner has satisfied all the requirements of section 4.5. A person requesting a formal determination may withdraw the petition without prejudice at any point before final agency action.

4.5.2 Types of Formal Determinations

A petitioner can request a formal determination consisting of a certified survey, an approximate delineation, or combinations thereof, as described below.

- (a) The survey of the extent of wetlands and other surface waters shall be certified pursuant to chapter 472, F.S., to meet the minimum technical standards in chapter 61G17-6, F.A.C. A petitioner seeking a certified surveyed delineation shall have a land surveyor registered in the State of Florida survey the verified boundaries of

wetlands and other surface waters, and shall have the surveyor or surveyor's representative accompany the District representative on the delineation verification described in subsection 4.4.3. The certified survey shall also contain a legal description of, and acreage contained within, the boundaries of the property for which the determination is sought. The boundaries of wetlands and other surface waters shall be witnessed to the property boundaries, and shall be capable of being mathematically reproduced from the survey. The petitioner shall submit five copies of the survey, along with five copies of the survey depicted on aerial photographs, to the District to complete the petition.

(b) An approximate delineation shall consist of a boundary produced by using global positioning system (GPS), a boundary drawn on rectified aerial photographs, a geo-reference image produced from a boundary drawn on a non-rectified aerial photograph, or any combination thereof.

1. A range of variability shall be determined for all approximate delineations by comparing a number of specific boundary points indicated on the aerial photograph, or located by GPS, to field located boundary points. The District shall determine the number and location of comparison sites using the total linear feet of delineated boundary such that the total number of sites reflects at least one site for every 1000 feet of delineated boundary. No fewer than three boundary point comparisons shall be performed for each approximate delineation. For GPS approximate delineations, the petitioner shall conduct a specific purpose survey, as defined in chapter 61G17-6, F.A.C., to show the relationship of field located boundary points to the GPS located boundary points. The range of variability shall be the greatest deviation measured at the comparison boundary points. An approximate delineation method cannot be used if the range of variability is equal to or greater than plus or minus 25 feet.
2. An aerial photograph shall serve as the basis for an approximate delineation only when the aerial photograph accurately depicts the boundaries of the wetlands and other surface waters by a clear expression of vegetative or physical signatures as verified by groundtruthing. If a submitted aerial photograph does not provide an accurate depiction, then the landward extent of wetlands and other surface waters shall be delineated by flagging the boundary, and the formal determination shall be produced using GPS or a certified survey.
3. Following any verification and adjustment as required in subsection 4.5.3, the petitioner shall submit five copies of the following to complete the petition: a hand drawn delineation on a rectified aerial photograph; the geo-referenced image of the delineation and aerial photograph with the delineation; or the GPS depiction of the delineation on an aerial photograph.
4. When a subsequent permit application includes regulated activities

within 200 feet of the landward extent of the range of variability of an approximate delineation at a given location, the applicant shall establish in the field the exact boundary of the wetlands and other surface waters at that location.

4.5.3 Locating the Surface Waters and Wetlands Boundary Line

If the property is 10 acres or greater in size, the petitioner or petitioner's agent shall initially delineate the boundaries of wetlands and other surface waters by either flagging the boundary for a certified survey or GPS, or estimating the extent of wetlands and other surface waters on aerial photographs, prior to the District's inspection of the site. A District representative will then verify the location of the boundary line and indicate to the petitioner any necessary adjustments in the initial delineation needed to reflect an accurate boundary. For properties less than 10 acres in size, the petitioner is not required to approximate the delineation.

4.5.4 Duration

The formal determination shall be binding for five years provided physical conditions on the property do not change so as to alter the boundaries of wetlands and other surface waters during that period. The Governing Board may revoke a formal determination upon a finding that the petitioner has submitted inaccurate information to the District.

4.5.5 Formal Determinations for Properties with an Existing Formal Determination

Within sixty days prior to the expiration of a formal determination, the property owner, an entity that has the power of eminent domain, or any other person who has a legal or equitable interest in the property may petition for a new formal determination for the same parcel of property and such determination shall be issued, approving the same extent of surface waters and wetlands in the previous formal determination, as long as physical conditions on the property have not changed, other than changes which have been authorized by a permit pursuant to this part, so as to alter the boundaries of surface waters or wetlands and the methodology for determining the extent of surface waters and wetlands ratified by Section 373.421, F.S. has not been amended since the previous formal determination. The application fee for such a subsequent petition shall be less than the application fee for the original determination.

4.5.6 Nonbinding Determinations

The District may issue informal nonbinding pre-application determinations or otherwise initiate nonbinding determinations on its own initiative as provided by law.